9th–12th Grade Worksheet Bundle:
Printable worksheets that include multiple subjects from a variety of our online solutions, including Study Island and Courseware.
Science Activities
Using the Scientific Method

In this activity, you will plan an investigation using the scientific method and answer the proposed questions.

Activity

Many farmers and gardeners compost their plant and animal waste. The living material naturally decays in compost bins, forming a dirt-like substance that's rich in nutrients. The next season, farmers use this substance as a natural fertilizer for their crops.

A biology student has grown tomato plants for several years. Until now, he used an artificial fertilizer formulated for tomato plants. This fertilizer caused his plants to grow faster and taller than they grew in unfertilized soil. The student wants to know whether using natural compost will cause his tomato plants to grow faster and taller than his artificial fertilizer.

Answer the following questions to plan an investigation using the steps of the scientific method and help the student find the answer to his question.

Part A

What are the student's observations and inferences before he starts his investigation?
Part B
What's the student's scientific question?

Part C
Construct at least two possible hypotheses for the student’s experiment.

Part D
Choose one of the hypotheses to make a prediction.
Part E
How would you conduct your investigation? In your answer, explain your independent and dependent variables.

Part F
How does the design of your experiment control for outside factors that may affect the results?

Part G
How do you plan to analyze and communicate your results?
Answers and Explanations

Part A
The student has observed that artificial fertilizer makes his plants grow faster and taller than plain soil. He knows that compost is a natural fertilizer. So, he infers that compost will make his plants grow at a faster rate than they grow in plain soil.

Part B
The scientific question posed by the student is, Does compost cause tomato plants to grow faster and taller than artificial fertilizer?

Part C
Hypothesis 1: The natural nutrients in compost will cause the tomato plants to grow at a faster rate than they grow when given artificial fertilizer.

Hypothesis 2: The artificial fertilizer is formulated specifically for tomato plants, so it will cause the plants to grow at a faster rate than they grow when given compost.

Part D
Here is one possible answer:
The tomato plants will grow faster and taller in soil with compost over a 30-day period.

Part E
Here is one possible answer:
The dependent variable is the growth rate of the plant. The independent variable is the type of fertilizer used over time. There will be three groups of tomato plants raised from seed: one group will be a control group without any fertilizer, the second group will be planted in soil with artificial fertilizer, and the third group will be planted in soil with compost. The height of the plants will be measured every five days, over a 30-day period.

Part F
Here is one possible answer:
The seeds will all be planted at the same time and provided with the same amount of light and water. Three trials of the experiment will be conducted to improve the accuracy of the results.

Part G
Here is one possible answer:
Show the growth of all three groups of plants over time using a line graph. Calculate the average final heights of all three groups of plants after 30 days.
Average Atomic Mass

In this activity, you will calculate the average atomic mass of oxygen, silicon, and their isotopes.

Question 1

In nature, oxygen has three common isotopes. The atomic masses and relative abundances of these isotopes are given in the table below.

<table>
<thead>
<tr>
<th>Isotope</th>
<th>Atomic Mass (amu)</th>
<th>Relative Abundance</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-16</td>
<td>15.995</td>
<td>99.759%</td>
</tr>
<tr>
<td>O-17</td>
<td>16.995</td>
<td>0.037%</td>
</tr>
<tr>
<td>O-18</td>
<td>17.999</td>
<td>0.204%</td>
</tr>
</tbody>
</table>

Calculate the average atomic mass of oxygen. Show all of your calculations below.
Question 2

Silicon has three naturally occurring isotopes.

<table>
<thead>
<tr>
<th>Isotope</th>
<th>Atomic Mass (amu)</th>
<th>Percent Abundance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon-28</td>
<td>27.98</td>
<td>92.21%</td>
</tr>
<tr>
<td>Silicon-29</td>
<td>28.98</td>
<td>4.70%</td>
</tr>
<tr>
<td>Silicon-30</td>
<td>29.97</td>
<td>3.09%</td>
</tr>
</tbody>
</table>

Part A

Look at the information given and predict whether the average atomic mass would be closer to Si-28, Si-29, or Si-30. Give reasons for your answer.

Part B

Calculate the average atomic mass of silicon (show your calculations). Is this close to the isotope you predicted earlier?
Answers and Explanations

Question 1
Converting the percent abundance into decimal form, we get:
O-16: 99.759% = 99.759/100 = 0.9975
O-17: 0.037% = 0.037/100 = 0.00037
O-18: 0.204% = 0.204/100 = 0.0020
Average atomic mass of oxygen is:
\[(15.995) \times (0.9975) + (16.995) \times (0.00037) + (17.999) \times (0.0020)\]
= 15.955 + 0.0062 + 0.0359
= 15.997 amu

Question 2: Part A
The average atomic mass of silicon would be closer to Si-28 as it is the most abundant isotope.

Question 2: Part B
Converting the percent abundance into decimal form, we get:
Si-28: 92.21% = 92.21/100 = 0.9221
Si-29: 4.70% = 4.70/100 = 0.0470
Si-30: 3.09% = 3.09/100 = 0.0309
Average atomic mass of silicon is:
\[(27.98) \times (0.9221) + (28.98) \times (0.0470) + (29.97) \times (0.0309)\]
= 25.800 + 1.362 + 0.926
= 28.08 amu
Math Activities
Interpreting Expressions

In this activity, you'll create and interpret parts of linear and exponential expressions.

Part A
Write an expression with four terms. Include at least one term with an exponent, one term with a coefficient of 5, one term with three factors, and one constant. Make two of the terms like terms. Include a brief description of each term in the expression.

Answer:

Part B
Suppose the expression shown represents how much a bakery charges for a carrot cake. The total charge consists of a base price and an additional charge, where p is each additional serving beyond 8 servings. Give an interpretation for the three parts of the expression. $15 + $2p

Answer:
Part C
Suppose the expression \(a(b)^n\) models the approximate number of customers who have entered a bakery every day since it opened. In this expression, \(a\) is the initial number of customers, \(b\) is the rate of increase in customers every day, and \(n\) is the number of days since the bakery opened. The expression shown models the approximate number of customers that have entered the bakery every day since it opened. \(14(1.2)^{10}\)

**Question 1:**
What does the first factor represent for someone trying to analyze the customer patterns of the bakery?

Answer:

**Question 2:**
The entire expression, if simplified, would yield the total number of customers entering the bakery on which day?

Answer:

**Question 3:**
The second factor, \((1.2)^{10}\), can be approximated to 6.2. What does 6.2 represent in the context of the situation?

Answer:
Self-Evaluation
How did you do? Rate your work on a scale of 1 to 5, with 5 as the highest score. Then write a brief evaluation of your work below. Note what you learned and what challenged you.

Answer:
Answers and Explanations

Part A

$5x^3 + x^3 + xyz + 4$

The term with an exponent and a coefficient of 1 is $x^3$. The term with a coefficient of 5 is $5x^3$. The term with three factors is $xyz$. The constant is 4, and the two like terms are $5x^3$ and $x^3$.

Part B

$15$ is the base (fixed) price of a carrot cake that serves 8 people. For a larger cake, each additional serving, $p$, has an additional cost of $2$.

Part C

Question 1: The first factor of the expression represents the number of people who entered the bakery on the first day it opened. So, approximately 14 customers entered the bakery that day.

Question 2: It would yield the number of customers entering the bakery on the 10th day.

Question 3: There were 6.2 times as many customers on the 10th day as there were the first day it opened.
Analyzing Population Growth

In this activity, you will examine what happens in a relationship that is growing in a nonlinear way, and you’ll model the relationship with a graph.

Part A

Gavin is analyzing the success of a newly launched game app. The game takes place on an island that's been overrun with zombies. When a player is on level one of the game, the population of zombies is 50,000. Each time the player advances to a new level, that population grows at a rate of 5%. Answer the questions that follow to continue Gavin’s analysis.

Use the initial zombie population and growth rate per level to complete the table and estimate the population at level 5. Round to the nearest whole number, if necessary.

<table>
<thead>
<tr>
<th>Game Level</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>50,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part B

Continue filling in the table to estimate the population at level 9. Round to the nearest whole number, if necessary.

<table>
<thead>
<tr>
<th>Game Level</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part C
The intervals between levels 1 through 9 are equal. Compare the differences in population from level 1 to 5 and from 6 to 9. Are they equal? Why or why not?

Answer:

Part D
Would the graph representing this relationship be linear?

Answer:

Part E
What is the independent variable in this situation? What is the dependent variable in this situation?

Answer:
Part F
Think about the intervals and scale that would be most appropriate for graphing this relationship. Use what you’ve learned so far about quantities, units, and intervals along with the populations in levels 1, 5, and 9 to create a graph of the relationship. In the graph below, label both axes appropriately.
Self-Evaluation

How did you do? Rate your work on a scale of 1 to 5, with 5 as the highest score. Then write a brief evaluation of your work below. Note what you learned and what challenged you.

Answer:
Answers and Explanations

Part A
The estimated population at level 5 is 60,775.

Part B
The estimated population at level 9 is 73,873.

Part C
No, the differences in population aren’t equal.

The difference of levels 1 and 5 is 60,775 – 50,000 = 10,775.

The difference of levels 5 and 9 is 73,873 – 60,775 = 13,098.

The differences are unequal, meaning the rate of change is not constant.

Part D
No, the graph representing this relationship will not be linear because the population is not increasing at a constant rate.

Part E
The independent variable is the game level reached, and the dependent variable is the population.

Part F
Question 1.

A pizza buffet has prepared 16 pizzas to place on the line at the beginning of lunch at 11:00 a.m. The equation used to describe the total number of pizzas that have been placed out on the buffet line is shown below.

\[ y = 12x + 16 \]

If \( x \) represents every 6 minutes after 11:00 a.m, which statement best describes the rate of change in the number of pizzas set out on the buffet?

- A. Every 12 minutes, 12 more pizzas were set out on the buffet.
- B. Every 12 minutes, 24 more pizzas were set out on the buffet.
- C. Every 12 minutes, 34 more pizzas were set out on the buffet.
- D. Every 6 minutes, 22 more pizzas were set out on the buffet.

Question 2.

James is making a map for Geography. In order to draw the map, he must create a scale converting the measured inches on the map to actual miles.

<table>
<thead>
<tr>
<th>Length in Inches</th>
<th>1 1/4</th>
<th>1 1/2</th>
<th>1 3/4</th>
<th>2 1/4</th>
<th>2 1/2</th>
<th>2 3/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length in Miles</td>
<td>75</td>
<td>90</td>
<td>105</td>
<td>135</td>
<td>150</td>
<td>165</td>
</tr>
</tbody>
</table>

Use the table above to identify the scale he used for his map.

- A. 1 in = 20 miles
- B. 1 in = 15 miles
- C. 1 in = 60 miles
- D. 1 in = 30 miles

Question 3.

For a fundraiser, Marcus needs to raise $900 in order to meet his goal. Marcus will walk a certain number of miles, and he will receive donations for each mile he walks. The table represents the amount of money he has left to raise after \( x \) miles of walking.

<table>
<thead>
<tr>
<th>( x )</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>( g(x) )</td>
<td>$838</td>
<td>$776</td>
<td>$714</td>
<td>$652</td>
<td>$590</td>
<td>$528</td>
</tr>
</tbody>
</table>

What is the average rate of change over the interval [6, 10]?

- A. -$62 per mile
- B. $62 per mile
- C. -$31 per mile
- D. $31 per mile
Question 4.

Cesar needs \( \frac{1}{4} \) cups of flour to make a cake that will serve 16 people. If Cesar wants to make enough cake to serve 48 people, how many cups of flour will he need?

A. 3
B. 4 \( \frac{1}{2} \)
C. 3 \( \frac{3}{4} \)
D. 2 \( \frac{1}{2} \)

Question 5.

The graph shows the distance a car can travel, \( d \), on \( g \) gallons of gasoline. How many miles per gallon does the car get?

A. 30 miles per gallon
B. 35 miles per gallon
C. 25 miles per gallon
D. 20 miles per gallon
Question 6.

Find the average rate of change of the function below over the interval [-2, 0].

\[ y \]

\[ x \]

\[ M(x) = 4,000 - 38x \]

A. \( \frac{1}{3} \)

B. 6

C. \( -\frac{4}{3} \)

D. \( \frac{1}{6} \)

Question 7.

Luella drives her vehicle the same number of miles each day. The number of miles remaining before her vehicle is due for its next routine service is represented by the function below, where \( x \) represents the number of days she has driven her vehicle since her last routine service.

\[ M(x) = 4,000 - 38x \]

What is the average rate of change over the interval [60, 90]?

A. 38 miles per day

B. -38 miles per day

C. 15 miles per day

D. -15 miles per day

Question 8.

The price of a recreational vehicle that is \( x \) years old is represented by the function below.

\[ P(x) = 34,280(0.86)^x \]

What is the approximate average rate of change over the interval [1, 9]?

A. $3,830.20 per year

B. -$2,582.45 per year

C. -$3,182.35 per year

D. -$20,659.62 per year
Question 9.

Sending text messages from Katrina's cell phone costs $0.16 per text message. From last month, she has a credit on her bill for $8.00. How much more money will she need to pay for text messages this month if she has sent 246 messages?

- A. $32.86
- B. $39.36
- C. $29.36
- D. $31.36

Question 10.

Directions: Drag each tile to the correct box.

Observe the three exponential functions below, each one expressed as a graph, table, or equation.

<table>
<thead>
<tr>
<th>( h(x) )</th>
<th>( g(x) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( x )</td>
<td>( g(x) )</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>83</td>
</tr>
<tr>
<td>4</td>
<td>245</td>
</tr>
<tr>
<td>5</td>
<td>731</td>
</tr>
</tbody>
</table>

\[ h(x) = 2(4)^x - 2 \]

Put the functions, with their corresponding intervals, in order from least to greatest according to their average rates of change over those intervals.
Answers: Algebra - Rate of Change

1. B
2. C
3. C
4. C
5. C
6. C
7. B
8. B
9. D
10. --
1. The slope-intercept form of a line is shown below.

\[ y = mx + b \]

Here \( m \) represents the slope and \( b \) represents the \( y \)-intercept.

The slope of the line shows the rate of change in a linear equation.

\[ y = 12x + 16 \]

In the equation shown above, the slope is 12, and \( x \) represents every 6 minutes after 11:00 a.m.

If for every 6 minutes, 12 pizzas are placed on the buffet, then for every 12 minutes, 24 more pizzas were set out on the buffet.

2. In order to find the scale of inches to miles that he used on his map, take each length in miles and divide by the length in inches.

\[
\begin{align*}
75 \text{ mi} / 1.25 \text{ in} &= 60 \text{ mi}/\text{in} \\
90 \text{ mi} / 1.50 \text{ in} &= 60 \text{ mi}/\text{in} \\
105 \text{ mi} / 1.75 \text{ in} &= 60 \text{ mi}/\text{in} \\
135 \text{ mi} / 2.25 \text{ in} &= 60 \text{ mi}/\text{in} \\
150 \text{ mi} / 2.50 \text{ in} &= 60 \text{ mi}/\text{in} \\
165 \text{ mi} / 2.75 \text{ in} &= 60 \text{ mi}/\text{in}
\end{align*}
\]

Thus, according to the consistent pattern above, he used a scale of 1 in = 60 miles.

3. To find the average rate of change of a function, \( f(x) \), over an interval \([a, b]\), use the following formula.

\[
\text{average rate of change} = \frac{f(b) - f(a)}{b - a}
\]

To find the average rate of change of \( g(x) \) over the interval \([6, 10]\), use the formula and the values given in the table.

\[
\frac{g(10) - g(6)}{10 - 6} = \frac{$390 - $714}{4 \text{ miles}} = \frac{-$324}{4 \text{ miles}} = -$81 \text{ per mile}
\]

4. Let \( x \) represent the number of cups of flour Cesar needs. Set up a proportion and solve for \( x \).

\[
\frac{\frac{1}{4} \text{ cups}}{16 \text{ people}} = \frac{x}{48 \text{ people}}
\]

\[
\left(\frac{1}{4} \text{ cups} \right) \left(48 \text{ people} \right) = 16 \text{ people} \cdot x
\]

\[
\left(\frac{5}{4} \text{ cups} \right) \left(48 \text{ people} \right) = 16x \text{ people}
\]

\[
\frac{15}{4} \text{ cups} = x
\]

Therefore, he will need 3 \( \frac{3}{4} \) cups of flour.
5. Pick two points to calculate the rate of change. In this case, the points (0, 0) and (12, 300) are used.

\[
\frac{300-0}{12-0} = \frac{300}{12} = 25
\]

Therefore, the car gets **25 miles per gallon**.

6. To find the average rate of change of a function, \( f(x) \), over an interval \([a, b]\), use the formula below.

\[
\text{average rate of change} = \frac{f(b) - f(a)}{b - a}
\]

The average rate of change is calculated below.

\[
\frac{f(0) - f(-2)}{0 - (-2)} = \frac{-3 - 5}{0 - (-2)} = \frac{-8}{2} = -4
\]

7. To find the average rate of change of a function, \( f(x) \), over an interval \([a, b]\), use the following formula.

\[
\text{average rate of change} = \frac{f(b) - f(a)}{b - a}
\]

First, calculate \( M(60) \) and \( M(90) \).

\[
M(60) = 4,000 - 38(60) = 1,720
\]

\[
M(90) = 4,000 - 38(90) = 580
\]

Next, to find the average rate of change over the interval \([60, 90]\), use the formula and the values for \( M(60) \) and \( M(90) \).

\[
\frac{M(90) - M(60)}{90 - 60} = \frac{580 \text{ miles} - 1,720 \text{ miles}}{90 \text{ days} - 60 \text{ days}} = -38 \text{ miles per day}
\]

8. To find the average rate of change of a function, \( f(x) \), over an interval \([a, b]\), use the following formula.

\[
\text{average rate of change} = \frac{f(b) - f(a)}{b - a}
\]

First, calculate \( P(1) \) and \( P(9) \).

\[
P(1) = \$34,280(0.86)^1 = \$28,900.80
\]

\[
P(9) = \$34,280(0.86)^9 \approx \$8,821.18
\]

Next, to find the approximate average rate of change over the interval \([1, 9]\), use the formula and the values for \( P(1) \) and \( P(9) \).

\[
\frac{P(9) - P(1)}{9 - 1} \approx \frac{\$8,821.18 - \$28,900.80}{9 \text{ years} - 1 \text{ year}} \approx -\$2,582.45 \text{ per year}
\]

Copyright © 2017 Edmentum - All rights reserved.
9. Let \( x \) be the additional amount of money needed.

\[
\frac{\$39.36}{1 \text{ message}} = \frac{x + \$8.00}{246 \text{ messages}}
\]

\[
\$39.36 = x + \$8.00
\]

\[
\$31.36 = x
\]

Therefore, Katrina will need an additional \$31.36 for sending 246 messages.

10. To find the average rate of change of a function, \( c(x) \), over an interval \([a, b]\), use the following formula.

\[
\text{avg rate of change} = \frac{c(b) - c(a)}{b - a}
\]

To put the functions, with their corresponding intervals, in order from least to greatest, calculate the average rate of change for each function over the given interval.

<table>
<thead>
<tr>
<th>( f(x) )</th>
<th>average rate of change = ( \frac{f(3) - f(2)}{3 - 2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>interval ([2, 3])</td>
<td>( = \frac{8 - 4}{1} = 4 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>( h(x) )</th>
<th>average rate of change = ( \frac{h(3) - h(2)}{3 - 2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>interval ([2, 3])</td>
<td>( = \frac{126 - 20}{1} = 96 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>( g(x) )</th>
<th>average rate of change = ( \frac{g(4) - g(2)}{4 - 2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>interval ([2, 4])</td>
<td>( = \frac{248 - 29}{2} = 108 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>( h(x) )</th>
<th>average rate of change = ( \frac{h(4) - h(3)}{4 - 3} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>interval ([3, 4])</td>
<td>( = \frac{510 - 126}{1} = 384 )</td>
</tr>
</tbody>
</table>

Since \( 4 < 96 < 108 < 384 \), the functions below, with their corresponding intervals, are in order from least to greatest according to their average rates of change over the given intervals.

\[
f(x) \quad h(x) \quad g(x) \quad h(x)
\]

\[
\text{interval } [2, 3] \quad \text{interval } [2, 3] \quad \text{interval } [2, 4] \quad \text{interval } [3, 4]
\]
In the triangle shown above, \( m \angle A = 49^\circ \), \( b = 14 \text{ m} \), and \( c = 20 \text{ m} \). What is the approximate length of side \( a \)?

- **A.** 228.61 m
- **B.** 24.39 m
- **C.** 15.12 m
- **D.** 20.31 m

**Question 2.**

The law of sines states that if \( ABC \) is a triangle with sides \( a \), \( b \), and \( c \), then the following is true.

\[
\frac{a}{\sin(A)} = \frac{b}{\sin(B)} = \frac{c}{\sin(C)}
\]

In order to prove the law of sines, what must first be constructed in triangle \( ABC \)?

- **A.** a median of triangle \( ABC \)
- **B.** a perpendicular bisector of triangle \( ABC \)
- **C.** an altitude of triangle \( ABC \)
- **D.** an angle bisector of triangle \( ABC \)
Question 3.

The law of cosines can be proved using the Pythagorean theorem.

Given triangle ABC, which statement below correctly uses the Pythagorean theorem in the proof of the law of cosines?

A. \( a^2 = (b \sin(A))^2 + (b \cos(A))^2 \)

B. \( a^2 = (b \cos(A))^2 + (c - b \cos(A))^2 \)

C. \( a^2 = (b \sin(A))^2 + (c + b \cos(A))^2 \)

D. \( a^2 = (b \sin(A))^2 + (c - b \cos(A))^2 \)

Question 4.

Directions: Select all the correct answers.

Rick, John, and Kevin are playing catch. Rick throws the ball to John, John throws the ball to Kevin, and Kevin throws the ball to Rick. John knows that the distance between him and Rick is 20 yards and the distance between him and Kevin is \( 20\sqrt{3} \) yards. He also knows that the angle created between Rick, himself, and Kevin has a measure of 30°.

Which person is making the shortest throw?

- Rick
- John
- Kevin
- It is impossible to know.
Question 5.

Note: Figure not drawn to scale.

In the triangle shown above, \( \angle A = 108° \), \( \angle C = 24° \), and \( a = 46 \text{ ft} \). What is the approximate length of side \( b \)?

- **A.** 35.94 ft
- **B.** 58.87 ft
- **C.** 31.13 ft
- **D.** 1.38 ft

Question 6.

Note: Figure not drawn to scale.

In the triangle shown above, \( a = 11 \text{ in} \), \( b = 14 \text{ in} \), and \( c = 7 \text{ in} \). What is the approximate measure of angle \( A \)?

- **A.** 39.25°
- **B.** 50.75°
- **C.** 99.72°
- **D.** 29.53°
Question 7.

Two forces acting on an object form a 60° angle. Force A is 30 pounds, force B is 20 pounds, and the resultant force is approximately 44 pounds.

What is the measure of the angle formed by the resultant force and force B? (Round to the nearest degree.)

- A. 84°
- B. 36°
- C. 23°
- D. 42°

Question 8.

In the triangle shown above \( \angle B = 108° \), \( \angle A = 50° \), and \( b = 13 \) in. What is the approximate length of side \( c \)?

- A. 2.7 in
- B. 33 in
- C. 5.12 in
- D. 7.63 in

Question 9.

In the triangle shown above \( \angle A = 41° \), \( \angle C = 28° \), and \( a = 15 \) in. What is the approximate length of side \( b \)?

- A. 24.21 in
- B. 18.87 in
- C. 10.54 in
- D. 21.35 in
In the triangle shown above, \( m\angle B = 43^\circ \), \( a = 36 \text{ cm} \), and \( c = 18 \text{ cm} \). What is the approximate length of side \( b \)?

A. 25.93 cm  
B. 672.17 cm  
C. 33.85 cm  
D. 40.23 cm
Answers: Geometry - Law of Sines and Law of Cosines

1. C
2. C
3. D
4. --
5. A
6. B
7. B
8. C
9. D
10. A
1. The law of cosines states that \( a^2 = b^2 + c^2 - 2bc \cos(A) \).

The question gives that \( \angle A = 49^\circ \), \( b = 14 \) m, and \( c = 20 \) m.

Evaluate the formula with the given information to find the approximate length of side \( a \).

\[
\begin{align*}
   a^2 &= b^2 + c^2 - 2bc \cos(A) \\
   a^2 &= (14 \text{ m})^2 + (20 \text{ m})^2 - 2(14 \text{ m})(20 \text{ m}) \cos(49^\circ) \\
   \sqrt{a^2} &\approx \sqrt{228.61} \text{ m} \\
   a &\approx 15.12 \text{ m}
\end{align*}
\]

2. The law of sines states that if \( ABC \) is a triangle with sides \( a \), \( b \), and \( c \), then the following is true.

\[
\frac{a}{\sin(A)} = \frac{b}{\sin(B)} = \frac{c}{\sin(C)}
\]

Given triangle \( ABC \), construct an altitude of the triangle. In this case, altitude \( CD \) was constructed, as shown below.

Two right triangles, \( ACD \) and \( BCD \), were formed. From these two right triangles, the following statements can be made.

\[
\begin{align*}
   \sin(A) &= \frac{\text{opposite}}{\text{hypotenuse}} = \frac{CD}{b} \\
   \sin(B) &= \frac{\text{opposite}}{\text{hypotenuse}} = \frac{CD}{a}
\end{align*}
\]

Thus, \( CD = b \sin(A) \) and \( CD = a \sin(B) \), which gives the following.

\[
\frac{b \sin(A)}{\sin(B)} = \frac{a \sin(B)}{\sin(A)}
\]

Similar reasoning produces the other components of the law of sines.
3. The law of cosines states that if ABC is a triangle with sides a, b, and c, then the following statements are true.

\[
\begin{align*}
    a^2 &= b^2 + c^2 - 2bc \cos(A) \\
    b^2 &= a^2 + c^2 - 2ac \cos(B) \\
    c^2 &= a^2 + b^2 - 2ab \cos(C)
\end{align*}
\]

Given triangle ABC, construct an altitude of the triangle. In this case, altitude CD was constructed, as shown below.

![Diagram of triangle ABC with altitude CD]

Two right triangles, ACD and BCD, were formed. From these two right triangles, the following statements can be made.

\[
\begin{align*}
    \cos(A) &= \frac{\text{adjacent}}{\text{hypotenuse}} = \frac{DA}{b} \\
    \sin(A) &= \frac{\text{opposite}}{\text{hypotenuse}} = \frac{CD}{b}
\end{align*}
\]

Thus, \(DA = b \cos(A)\), \(CD = b \sin(A)\), and \(DB = c - b \cos(A)\).

Triangle BCD is a right triangle with side a as the hypotenuse. Apply the Pythagorean theorem.

\[
a^2 = (CD)^2 + (DB)^2 \\
    = (b \sin(A))^2 + (c - b \cos(A))^2 \\
    = b^2 \sin^2(A) + c^2 - 2bc \cos(A) + b^2 \cos^2(A) \\
    = b^2(\sin^2(A) + \cos^2(A)) + c^2 - 2bc \cos(A)
\]

Since \(\sin^2(A) + \cos^2(A) = 1\), the following statement is derived.

\[
a^2 = b^2 + c^2 - 2bc \cos(A)
\]

Similar reasoning produces the other components of the law of cosines.
4. Begin by creating a model of the given situation. The path the ball is following creates a triangle, where each person represents a vertex. The resulting model is shown below, but is not drawn to scale.

From the information in the question, the following is also true for this model.

\[
RJ = 20 \text{ yards}
\]

\[
JK = 20\sqrt{3} \text{ yards}
\]

\[
\angle RJK = 30^\circ
\]

In order to determine who is making the shortest throw, find the length of segment KR by using the law of cosines.

\[
KR^2 = RJ^2 + JK^2 - 2(RJ)(JK)\cos(\angle RJK)
\]

\[
KR^2 = (20 \text{ yards})^2 + (20\sqrt{3} \text{ yards})^2 - 2(20 \text{ yards})(20\sqrt{3} \text{ yards})\cos(30^\circ)
\]

\[
KR^2 = 400 \text{ yards}^2 + 1,200 \text{ yards}^2 - 2(20 \text{ yards})(20\sqrt{3} \text{ yards})\left(\frac{\sqrt{3}}{2}\right)
\]

\[
KR^2 = 400 \text{ yards}^2 + 1,200 \text{ yards}^2 - 1,200 \text{ yards}^2
\]

\[
KR = 20 \text{ yards}
\]

So, both Rick and Kevin are throwing the same distance, both of which are shorter than the distance John is throwing. Therefore, both Rick and Kevin are making the shortest throws.

5. The law of sines states that if \(ABC\) is a triangle with sides \(a, b, \text{ and } c\), then the following is true.

\[
\frac{\sin(A)}{a} = \frac{\sin(B)}{b} = \frac{\sin(C)}{c}
\]

The question gives that \(m\angle A = 108^\circ, m\angle C = 24^\circ, \text{ and } a = 46 \text{ ft.}\)

First, use the given information to find the measure of angle B.

\[
m\angle A + m\angle B + m\angle C = 180^\circ
\]

\[
108^\circ + m\angle B + 24^\circ = 180^\circ
\]

\[
m\angle B = 48^\circ
\]

Apply the law of sines to solve for the length of side \(b\).

\[
\frac{\sin(A)}{a} = \frac{\sin(B)}{b}
\]

\[
\frac{\sin(108^\circ)}{46 \text{ ft}} = \frac{\sin(48^\circ)}{b}
\]

\[
b = \frac{(46 \text{ ft})\sin(48^\circ)}{\sin(108^\circ)}
\]

\[
b \approx 35.34 \text{ ft}
\]
6. The law of cosines states that $a^2 = b^2 + c^2 - 2bc \cos(A)$.

The question gives that $a = 11$ in, $b = 14$ in, and $c = 7$ in.

Evaluate the formula with the given information to find the approximate measure of angle $A$.

\[
a^2 = b^2 + c^2 - 2bc \cos(A)
\]

\[
2bc \cos(A) = b^2 + c^2 - a^2
\]

\[
\cos(A) = \frac{b^2 + c^2 - a^2}{2bc}
\]

\[
\cos(A) = \frac{(14 \text{ in})^2 + (7 \text{ in})^2 - (11 \text{ in})^2}{2(14 \text{ in})(7 \text{ in})}
\]

\[
\cos(A) \approx 0.6327
\]

$A \approx \cos^{-1}(0.6327)$

$A \approx 50.75^\circ$

7. The law of sines states that if $ABC$ is a triangle with side lengths $a$, $b$, and $c$, the following statement is true.

\[
\frac{a}{\sin(A)} = \frac{b}{\sin(B)} = \frac{c}{\sin(C)}
\]

First, sketch a picture of the forces acting on the object.

The resultant force vector is the diagonal of the parallelogram formed by the force A vector and the force B vector.

Next, use the law of sines to find the measure of the angle, $x$, formed by the resultant force and force B.

\[
\frac{44 \text{ pounds}}{\sin(120^\circ)} = \frac{30 \text{ pounds}}{\sin(x)}
\]

\[
(44 \text{ pounds})\sin(x) = (30 \text{ pounds})\sin(120^\circ)
\]

\[
\sin(x) = \frac{(30 \text{ pounds})\sin(120^\circ)}{44 \text{ pounds}}
\]

\[
x = \sin^{-1}\left(\frac{30\sin(120^\circ)}{44}\right)
\]

\[
x \approx 36^\circ
\]

Thus, to the nearest degree, the measure of the angle formed by the resultant force and force B is $36^\circ$.  

Copyright © 2017 Edmentum - All rights reserved.
8. The law of sines states that if \( \triangle ABC \) is a triangle with sides \( a, b, \) and \( c, \) then the following is true.

\[
\frac{a}{\sin(A)} = \frac{b}{\sin(B)} = \frac{c}{\sin(C)}
\]

The question gives that \( \angle B = 108^\circ, \angle A = 50^\circ, \) and \( b = 13 \text{ in}. \)

First, use the given information to find the measure of angle \( C. \)

\[
m\angle A + m\angle B + m\angle C = 180^\circ
\]

\[
50^\circ + 108^\circ + m\angle C = 180^\circ
\]

\[
m\angle C = 22^\circ
\]

Next, apply the law of sines to solve for the length of side \( c. \)

\[
\frac{c}{\sin(C)} = \frac{b}{\sin(B)}
\]

\[
\frac{c}{\sin(22^\circ)} = \frac{13 \text{ in}}{\sin(108^\circ)}
\]

\[
c = \frac{(13 \text{ in})\sin(22^\circ)}{\sin(108^\circ)}
\]

\[
c \approx 5.12 \text{ in}
\]

9. The law of sines states that if \( \triangle ABC \) is a triangle with sides \( a, b, \) and \( c, \) then the following is true.

\[
\frac{a}{\sin(A)} = \frac{b}{\sin(B)} = \frac{c}{\sin(C)}
\]

The question gives that \( \angle A = 41^\circ, \angle C = 28^\circ, \) and \( a = 15 \text{ in}. \)

First, use the given information to find the measure of angle \( B. \)

\[
m\angle A + m\angle B + m\angle C = 180^\circ
\]

\[
41^\circ + m\angle B + 28^\circ = 180^\circ
\]

\[
m\angle B = 111^\circ
\]

Next, apply the law of sines to solve for the length of side \( b. \)

\[
\frac{b}{\sin(B)} = \frac{a}{\sin(A)}
\]

\[
\frac{b}{\sin(111^\circ)} = \frac{15 \text{ in}}{\sin(41^\circ)}
\]

\[
b = \frac{(15 \text{ in})\sin(111^\circ)}{\sin(41^\circ)}
\]

\[
b \approx 21.35 \text{ in}
\]
10. The law of cosines states that \( b^2 = a^2 + c^2 - 2ac \cos(B) \).

The question gives that \( \angle B = 43^\circ \), \( a = 36 \text{ cm} \), and \( c = 18 \text{ cm} \).

Evaluate the formula with the given information to find the approximate length of side \( b \).

\[
\begin{align*}
   b^2 &= a^2 + c^2 - 2ac \cos(B) \\
   b^2 &= (36 \text{ cm})^2 + (18 \text{ cm})^2 - 2(36 \text{ cm})(18 \text{ cm})\cos(43^\circ) \\
   \sqrt{b^2} &\approx \sqrt{672.17} \text{ cm}^2 \\
   b &\approx 25.93 \text{ cm}
\end{align*}
\]
English Activities
Analyzing Frederick Douglass's Memoir

This activity will help you meet these educational goals:

You will cite textual evidence that strongly supports an analysis of what the text says; analyze the development of a central idea of a text over the course of the text; provide an objective summary of the text; and determine an author's point of view or purpose in a text.

Activity

In this activity, you’ll analyze the different characteristics of a memoir using examples from chapter 2 of Narrative of the Life of Frederick Douglass, an American Slave.

Part A

Complete the table with appropriate examples from Douglass’s memoir.

<table>
<thead>
<tr>
<th>Point of View (POV)</th>
<th>Event</th>
<th>Why the Event is Important</th>
<th>Feelings or Emotions Expressed in the Memoir</th>
<th>At least two examples of active voice</th>
<th>At Least two examples of passive voice</th>
<th>At least two examples of verb moods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part B

In your opinion, what can readers learn from reading Douglass's memoir? Why is it important to learn about these events from Douglass's point of view? Use details from the excerpt to support your answer.
Chapter 2

My master’s family consisted of two sons, Andrew and Richard; one daughter, Lucretia, and her husband, Captain Thomas Auld. They lived in one house, upon the home plantation of Colonel Edward Lloyd. My master was Colonel Lloyd's clerk and superintendent. He was what might be called the overseer of the overseers. I spent two years of childhood on this plantation in my old master's family. It was here that I witnessed the bloody transaction recorded in the first chapter; and as I received my first impressions of slavery on this plantation, I will give some description of it, and of slavery as it there existed. The plantation is about twelve miles north of Easton, in Talbot county, and is situated on the border of Miles River. The principal products raised upon it were tobacco, corn, and wheat. These were raised in great abundance; so that, with the products of this and the other farms belonging to him, he was able to keep in almost constant employment a large sloop, in carrying them to market at Baltimore. This sloop was named Sally Lloyd, in honor of one of the colonel's daughters. My master's son-in-law, Captain Auld, was master of the vessel; she was otherwise manned by the colonel's own slaves. Their names were Peter, Isaac, Rich, and Jake. These were esteemed very highly by the other slaves, and looked upon as the privileged ones of the plantation; for it was no small affair, in the eyes of the slaves, to be allowed to see Baltimore.

Colonel Lloyd kept from three to four hundred slaves on his home plantation, and owned a large number more on the neighboring farms belonging to him. The names of the farms nearest to the home plantation were Wye Town and New Design. "Wye Town" was under the overseership of a man named Noah Willis. New Design was under the overseership of a Mr. Townsend. The overseers of these, and all the rest of the farms, numbering over twenty, received advice and direction from the managers of the home plantation. This was the great business place. It was the seat of government for the whole twenty farms. All disputes among the overseers were settled here. If a slave was convicted of any high misdemeanor, became unmanageable, or evinced a determination to run away, he was brought immediately here, severely whipped, put on board the sloop, carried to Baltimore, and sold to Austin Woolfolk, or some other slave-trader, as a warning to the slaves remaining.

Here, too, the slaves of all the other farms received their monthly allowance of food, and their yearly clothing. The men and women slaves received, as their monthly allowance of food, eight pounds of pork, or its equivalent in fish, and one bushel of corn meal. Their yearly clothing consisted of two coarse linen shirts, one pair of linen trousers, like the shirts, one jacket, one pair of trousers for winter, made of coarse negro cloth, one pair of stockings, and one pair of shoes; the whole of which could not have cost more than seven dollars. The allowance of the slave children was given to their mothers, or the old women having the care of them. The children unable to work in the field had neither shoes, stockings, jackets, nor trousers, given to them; their clothing consisted of two coarse linen shirts per year. When these failed them, they went naked until the next allowance-day. Children from seven to ten years old, of both sexes, almost naked, might be seen at all seasons of the year.

There were no beds given the slaves, unless one coarse blanket be considered such, and none but the men and women had these. This, however, is not considered a very great privation. They find less difficulty from the want of beds, than from the want of time to sleep; for when their day's work in the field is done, the most of them having their washing, mending, and cooking to do, and having few or none of the ordinary facilities for doing either of these, very many of their sleeping hours are consumed in preparing for the field the coming day; and when this is done, old and young, male and female, married and single, drop down side by side, on one common bed,—the cold, damp floor,—each covering himself or herself with their miserable blankets; and here they sleep till they are summoned to the field by the driver's horn. At the sound of this, all must rise, and be off
to the field. There must be no halting; every one must be at his or her post; and woe betides them who hear not this morning summons to the field; for if they are not awakened by the sense of hearing, they are by the sense of feeling: no age nor sex finds any favor. Mr. Severe, the overseer, used to stand by the door of the quarter, armed with a large hickory stick and heavy cowskin, ready to whip any one who was so unfortunate as not to hear, or, from any other cause, was prevented from being ready to start for the field at the sound of the horn.

Mr. Severe was rightly named: he was a cruel man. I have seen him whip a woman, causing the blood to run half an hour at the time; and this, too, in the midst of her crying children, pleading for their mother's release. He seemed to take pleasure in manifesting his fiendish barbarity. Added to his cruelty, he was a profane swearer. It was enough to chill the blood and stiffen the hair of an ordinary man to hear him talk. Scarce a sentence escaped him but that was commenced or concluded by some horrid oath. The field was the place to witness his cruelty and profanity. His presence made it both the field of blood and of blasphemy. From the rising till the going down of the sun, he was cursing, raving, cutting, and slashing among the slaves of the field, in the most frightful manner. His career was short. He died very soon after I went to Colonel Lloyd's; and he died as he lived, uttering, with his dying groans, bitter curses and horrid oaths. His death was regarded by the slaves as the result of a merciful providence.

Mr. Severe's place was filled by a Mr. Hopkins. He was a very different man. He was less cruel, less profane, and made less noise, than Mr. Severe. His course was characterized by no extraordinary demonstrations of cruelty. He whipped, but seemed to take no pleasure in it. He was called by the slaves a good overseer.

The home plantation of Colonel Lloyd wore the appearance of a country village. All the mechanical operations for all the farms were performed here. The shoemaking and mending, the blacksmithing, cartwrighting, coopering, weaving, and grain-grinding, were all performed by the slaves on the home plantation. The whole place wore a business-like aspect very unlike the neighboring farms. The number of houses, too, conspired to give it advantage over the neighboring farms. It was called by the slaves the Great House Farm. Few privileges were esteemed higher, by the slaves of the out-farms, than that of being selected to do errands at the Great House Farm. It was associated in their minds with greatness. A representative could not be prouder of his election to a seat in the American Congress, than a slave on one of the out-farms would be of his election to do errands at the Great House Farm. They regarded it as evidence of great confidence reposed in them by their overseers; and it was on this account, as well as a constant desire to be out of the field from under the driver's lash, that they esteemed it a high privilege, one worth careful living for. He was called the smartest and most trusty fellow, who had this honor conferred upon him the most frequently. The competitors for this office sought as diligently to please their overseers, as the office-seekers in the political parties seek to please and deceive the people. The same traits of character might be seen in Colonel Lloyd's slaves, as are seen in the slaves of the political parties.

The slaves selected to go to the Great House Farm, for the monthly allowance for themselves and their fellow-slaves, were peculiarly enthusiastic. While on their way, they would make the dense old woods, for miles around, reverberate with their wild songs, revealing at once the highest joy and the deepest sadness. They would compose and sing as they went along, consulting neither time nor tune. The thought that came up, came out—if not in the word, in the sound;—and as frequently in the one as in the other. They would sometimes sing the most pathetic sentiment in the most rapturous tone, and the most rapturous sentiment in the most pathetic tone. Into all of their songs they would manage to weave something of the Great House Farm. Especially would they do this, when leaving home. They would then sing most exultingly the following words:—

"I am going away to the Great House Farm!
O, yea! O, yea! O!"

This they would sing, as a chorus, to words which to many would seem unmeaning jargon, but which, nevertheless, were full of meaning to themselves. I have sometimes thought that the mere hearing of those
songs would do more to impress some minds with the horrible character of slavery, than the reading of whole volumes of philosophy on the subject could do.

I did not, when a slave, understand the deep meaning of those rude and apparently incoherent songs. I was myself within the circle; so that I neither saw nor heard as those without might see and hear. They told a tale of woe which was then altogether beyond my feeble comprehension; they were tones loud, long, and deep; they breathed the prayer and complaint of souls boiling over with the bitterest anguish. Every tone was a testimony against slavery, and a prayer to God for deliverance from chains. The hearing of those wild notes always depressed my spirit, and filled me with ineffable sadness. I have frequently found myself in tears while hearing them. The mere recurrence to those songs, even now, afflicts me; and while I am writing these lines, an expression of feeling has already found its way down my cheek. To those songs I trace my first glimmering conception of the dehumanizing character of slavery. I can never get rid of that conception. Those songs still follow me, to deepen my hatred of slavery, and quicken my sympathies for my brethren in bonds. If any one wishes to be impressed with the soul-killing effects of slavery, let him go to Colonel Lloyd's plantation, and, on allowance-day, place himself in the deep pine woods, and there let him, in silence, analyze the sounds that shall pass through the chambers of his soul,—and if he is not thus impressed, it will only be because "there is no flesh in his obdurate heart."

I have often been utterly astonished, since I came to the north, to find persons who could speak of the singing, among slaves, as evidence of their contentment and happiness. It is impossible to conceive of a greater mistake. Slaves sing most when they are most unhappy. The songs of the slave represent the sorrows of his heart; and he is relieved by them, only as an aching heart is relieved by its tears. At least, such is my experience. I have often sung to drown my sorrow, but seldom to express my happiness. Crying for joy, and singing for joy, were alike uncommon to me while in the jaws of slavery. The singing of a man cast away upon a desolate island might be as appropriately considered as evidence of contentment and happiness, as the singing of a slave; the songs of the one and of the other are prompted by the same emotion.
Answers and Explanations

Part A

<table>
<thead>
<tr>
<th>Point of View (POV)</th>
<th>The point of view in this excerpt is first person.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event</td>
<td>The slaves felt proud when they were chosen to do errands at Colonel Lloyd’s plantation.</td>
</tr>
<tr>
<td>Why the Event is Important</td>
<td>It made Douglass realize the dangerous psychological effects that slavery had on slaves. They lost their sense of self-worth.</td>
</tr>
<tr>
<td>Feelings or Emotions Expressed in the Memoir</td>
<td>Frederick Douglass expresses outrage at the treatment of the slaves.</td>
</tr>
<tr>
<td>At least two examples of active voice</td>
<td>He died very soon after I went to Colonel Lloyd's; and he died as he lived, uttering, with his dying groans, bitter curses and horrid oaths.</td>
</tr>
<tr>
<td></td>
<td>He whipped, but seemed to take no pleasure in it.</td>
</tr>
<tr>
<td>At Least two examples of passive voice</td>
<td>He was called by the slaves a good overseer.</td>
</tr>
<tr>
<td></td>
<td>These were esteemed very highly by the other slaves, and looked upon as the privileged ones of the plantation…</td>
</tr>
<tr>
<td>At least two examples of verb moods</td>
<td>Conditional mood:</td>
</tr>
<tr>
<td></td>
<td>If a slave was convicted of any high misdemeanor, became unmanageable, or evinced a determination to run away, he was brought immediately here…</td>
</tr>
<tr>
<td></td>
<td>Subjunctive mood:</td>
</tr>
<tr>
<td></td>
<td>…If he is not thus impressed, it will only be because &quot;there is no flesh in his obdurate heart.&quot;</td>
</tr>
</tbody>
</table>

Part B

Your answer might make these points:

Readers learn more about slavery and how it ruined the physical and mental health of slaves. They also learn the historical reasons for the rise of slavery and how it led to the Civil War. For instance, slave labor supported large plantations and, as a result, created great wealth for landowners in the South.

By reading Douglass’s memoir, readers can see the practice of slavery through the eyes of a former slave. They may gain a better understanding of why Douglass did the things he did (such as write books, become an activist, and recruit blacks to fight for the Union Army)
Subject and Theme in “The Exercise”

This activity will help you meet these educational goals:

You will identify and evaluate the subject and themes, analyze character development, and evaluate the culture revealed in the “The Exercise.”

Activity

You also learned the ways in which subjects and themes differ and the techniques that authors use to express theme. In the next task, you will use what you know about the ways in which subjects and themes differ and the techniques authors use to express theme to evaluate “The Exercise.”

Part A

Consider what you know about subject and theme in literature. What is the subject, and what is one central theme in this story? How does the author introduce and develop this theme throughout the text?
Part B
How do Kevin's interactions with his father and his teacher, Waldo, help develop the theme within the story? Provide evidence from the reading to support your response.

Part C
Why do you think the beginning and end of the story describe Kevin putting his hand in his father's coat pocket? How does this motif connect to and develop the theme and mood within the story?
Part D
What might it mean that Kevin feels caught between two different “fathers”—at home with his family and at school with his teacher, who is a priest? Why might the author give this word multiple meanings? Your answer should be between one and three paragraphs in length.

Part E
What circumstances does Kevin experience that show he is probably not growing up in the contemporary United States?
"We never got the chance," his mother would say to him. "It wouldn't have done me much good but your father could have bettered himself. He'd be teaching or something now instead of serving behind a bar. He could stand up with the best of them."

Now that he had started grammar school Kevin’s father joined him in his work, helping him when he had the time, sometimes doing the exercises out of the text books on his own before he went to bed. He worked mainly from examples in the Maths and Language books or from previously corrected work of Kevin’s. Often his wife took a hand out of him saying, "Do you think you'll pass your Christmas Tests?"

When he concentrated he sat hunched at the kitchen table, his non-writing hand shoved down the back of his trousers and his tongue stuck out.

"Put that thing back in your mouth," Kevin’s mother would say, laughing. “You’ve a tongue on you like a cow.”

His father smelt strongly of tobacco for he smoked both a pipe and cigarettes. When he gave Kevin money for sweets he’d say, “You’ll get sixpence in my coat pocket on the banisters.”

Kevin would dig into the pocket deep down almost to his elbow and pull out a handful of coins speckled with bits of yellow and black tobacco. His father also smelt of porter, not his breath, for he never drank but from his clothes and Kevin thought it mixed nicely with his grown up smell. He loved to smell his pyjama jacket and the shirts he left off for washing.

Once in a while Kevin’s father would come in at six o’clock, sit in his armchair and say, “Slippers.”

“You’re not staying in, are you?” The three boys shouted and danced around, the youngest pulling off his big boots, falling back on the floor as they came away from his feet, Kevin, the eldest, standing on the arm of the chair to get the slippers down from the cupboard.

“Some one of you get a good shovel of coal for that fire,” and they sat in the warm kitchen doing their homework, their father reading the paper or moving about doing some job their mother had been at him to do for months. Before their bedtime he would read the younger ones a story or if there were no books in the house at the time he would choose a piece from the paper. Kevin listened with the others although he pretended to be doing something else.

But it was not one of those nights. His father stood shaving with his overcoat on, a very heavy navy overcoat, in a great hurry, his face creamed thick with white lather. Kevin knelt on the cold lino of the bathroom floor, one elbow leaning on the padded seat of the green wicker chair trying to get help with his Latin. It was one of those exercises which asked for the nominative and genitive of: an evil deed, a wise father and so on.

“What’s the Latin for ‘evil’?”

His father towered above him trying to get at the mirror, pointing his chin upwards scraping underneath.

“Look it up at the back.”

Kevin sucked the end of his pencil and fumbled through the vocabularies. His father finished shaving, humped his back and spluttered in the basin. Kevin heard him pull the plug and the final gasp as the water escaped. He groped for the towel then genuflected beside him drying his face.
“Where is it?” He looked down still drying slower and slower, meditatively until he stopped.

“I’ll tell you just this once because I’m in a hurry.”

Kevin stopped sucking the pencil and held it poised, ready and wrote the answers with great speed into his jotter as his father called them out.

“Is that them all?” his father asked, draping the towel over the side of the bath. He leaned forward to kiss Kevin but the boy lowered his head to look at something in the book. As his father rushed down the stairs he shouted back over his shoulder.

“Don’t ever ask me to do that again. You’ll have to work them out for yourself.”

He was away leaving Kevin sitting at the chair. The towel edged its way slowly down the side of the bath and fell on the floor. He got up and looked in the wash-hand basin.

The bottom was covered in short black hairs, shavings. He drew a white path through them with his finger. Then he turned and went down the stairs to copy the answers in ink.

Of all the teachers in the school Waldo was the one who commanded the most respect. In his presence nobody talked, with the result that he walked the corridors in a moat of silence. Boys seeing him approach would drop their voices to a whisper and only when he was out of earshot would they speak normally again. Between classes there was always five minutes uproar. The boys wrestled over desks, shouted, whistled, flung books while some tried to learn their nouns, eyes closed, feet tapping to the rhythm of declensions. Others put frantic finishing touches to last night’s exercise. Some minutes before Waldo’s punctual arrival, the class quietened. Three rows of boys, all by now strumming nouns, sat hunched and waiting.

Waldo’s entrance was theatrical. He strode in with strides as long as his soutane would permit, his books clenched in his left hand and pressed tightly against his chest. With his right hand he swung the door behind him, closing it with a crash. His eyes raked the class. If, as occasionally happened, it did not close properly he did not turn from the class but backed slowly against the door snapping it shut with his behind. Two strides brought him to the rostrum. He cracked his books down with an explosion and made a swift palm upward gesture.

Waldo was very tall, his height being emphasised by the soutane, narrow and tight-fitting at the shoulders, sweeping down like a bell to the floor. A row of black gleaming buttons bisected him from floor to throat. When he talked his Adam’s apple hit against the hard, white Roman collar and created in Kevin the same sensation as a fingernail scraping down the blackboard. His face was sallow and immobile. (There was a rumour that he had a glass eye but no-one knew which. Nobody could look at him long enough because to meet his stare was to invite a question.) He abhorred slovenliness. Once when presented with an untidy exercise book, dog-eared with a tea ring on the cover, he picked it up, the corner of one leaf between his finger and thumb, the pages splaying out like a fan, opened the window and dropped it three floors to the ground. His own neatness became exaggerated when he was at the board, writing in copperplate script just large enough for the boy in the back row to read – geometrical columns of declined nouns defined by exact, invisible margins. When he had finished he would set the chalk down and rub the used finger and thumb together with the same action he used after handling the host over the paten.

The palm upward gesture brought the class to its feet and they said the Hail Mary in Latin. While it was being said all eyes looked down because they knew if they looked up Waldo was bound to be staring at them.

“Exercises.”

When Waldo was in a hurry he corrected the exercises verbally, asking one boy for the answers and then asking all those who got it right to put up their hands. It was four for anyone who lied about his answer and now and then he would take spot checks to find out the liars.
“Hold it, hold it there,” he would say and leap from the rostrum, moving through the forest of hands and look at each boy’s book, tracing out the answer with the tip of his cane. Before the end of the round and while his attention was on one book a few hands would be lowered quietly. Today he was in a hurry. The atmosphere was tense as he looked from one boy to another, deciding who would start.

“Sweeny, we’ll begin with you.” Kevin rose to his feet, his finger trembling under the place in the book. He read the first answer and looked up. Waldo remained impassive. He would let someone while translating unseens ramble on and on with great imagination until he faltered, stopped and admitted that he didn’t know. Then and only then would he be slapped.

“Two, nominative. Sapienter Pater.” Kevin went on haltingly through the whole ten and stopped, waiting for a comment from Waldo. It was a long time before he spoke. When he did it was with bored annoyance.

“Every last one of them is wrong.”

“But sir, Father, they couldn’t be wr . . .” Kevin said it with such conviction, blurted it out so quickly that Waldo looked at him in surprise.

“Why not?”

“Because my . . .” Kevin stopped.

“Well?” Waldo’s stone face resting on his knuckles. “Because my what?”

It was too late to turn back now.

“Because my father said so,” he mumbled very low, chin on chest.

“Speak up, let us all hear you.” Some of the boys had heard and he thought they sniggered.

“Because my father said so.” This time the commotion in the class was obvious.

“And where does your father teach Latin?” There was no escape. Waldo had him. He knew now there would be an exhibition for the class. Kevin placed his weight on his arm and felt his tremble communicated to the desk.

“He doesn’t, Father.”

“And what does he do?”

Kevin hesitated, stammering,

“He’s a barman.”

“A barman!” Waldo mimicked and the class roared loudly.

“Quiet.” He wheeled on them. “You, Sweeny. Come out here.” He reached inside the breast of his soutane and with a flourish produced a thin yellow cane, whipping it back and forth, testing it.

Kevin walked out to the front of the class, his face fiery red, the blood throbbing in his ears. He held out his hand. Waldo raised it higher, more to his liking, with the tip of the cane touching the underside of the upturned palm. He held it there for some time.

“If your brilliant father continues to do your homework for you, Sweeny, you’ll end up a barman yourself.” Then he whipped the cane down expertly across the tips of his fingers and again just as the blood began to surge back into them. Each time the cane in its follow-through cracked loudly against the skirts of his soutane.

“You could have made a better job of it yourself. Other hand.” The same ritual of raising and lowering the left hand with the tip of the cane to the desired height. “After all, I have taught you some Latin.” Crack. “It would be hard to do any worse.”
Kevin went back to his place resisting a desire to hug his hands under his armpits and stumbled on a
schoolbag jutting into the aisle as he pushed into his desk. Again Waldo looked round the class and said, “Now
we’ll have it right from someone.”

The class continued and Kevin nursed his fingers, out of the fray.

As the bell rang Waldo gathered up his books and said, “Sweeny, I want a word with you outside. Ave Maria,
gratia plena . . .” It was not until the end of the corridor that Waldo turned to face him. He looked at Kevin and
maintained his silence for a moment.

“Sweeny, I must apologise to you.” Kevin bowed his head. “I meant your father no harm—he’s probably a good
man, a very good man.”

“Yes, sir,” said Kevin. The pain in his fingers had gone.

“Look at me when I’m talking, please.” Kevin looked at his collar, his Adam’s apple, then his face. It relaxed for
a fraction and Kevin thought he was almost going to smile, but he became efficient, abrupt again.

“All right, very good, you may go back to your class.”

“Yes Father,” Kevin nodded and moved back along the empty corridor.

Some nights when he had finished his homework early he would go down to meet his father coming home from
work. It was dark, October, and he stood close against the high wall at the bus-stop trying to shelter from the
cutting wind. His thin black blazer with the school emblem on the breast pocket and his short grey trousers,
both new for starting grammar school, did little to keep him warm. He stood shivering, his hands in his trouser
pockets and looked down at his knees which were blue and marbled, quivering uncontrollably. It was six
o’clock when he left the house and he had been standing for fifteen minutes. Traffic began to thin out and the
buses became less regular, carrying fewer and fewer passengers. There was a moment of silence when there
was no traffic and he heard a piece of paper scraping along on pointed edges. He kicked it as it passed him.
He thought of what had happened, of Waldo and his father. On the first day in class Waldo had picked out
many boys by their names.

“Yes, I know your father well,” or “I taught your elder brother. A fine priest he’s made. Next.”

“Sweeny, Father.”

“Sweeny? Sweeny? – You’re not Dr John’s son, are you?”

“No Father.”

“Or anything to do with the milk people?”

“No Father.”

“Next.” He passed on without further comment.

Twenty-five past six. Another bus turned the corner and Kevin saw his father standing on the platform. He
moved forward to the stop as the bus slowed down. His father jumped lightly off and saw Kevin waiting for him.
He clipped him over the head with the tightly rolled newspaper he was carrying.

“How are you big lad?”

“All right,” said Kevin shivering. He humped his shoulders and set off beside his father, bumping into him
uncertainly as he walked.

“How did it go today?” his father asked.

“All right.” They kept silent until they reached the corner of their own street.
“What about the Latin?”

Kevin faltered, feeling a babyish desire to cry.

“How was it?”

“OK. Fine.”

“Good. I was a bit worried about it. It was done in a bit of a rush. Son, your Da’s a genius.” He smacked him with the paper again. Kevin laughed and slipped his hand into the warmth of his father’s overcoat pocket, deep to the elbow.
Answers and Explanations

Part A

Sample Answer

The subject of the story is the experience of a young boy named Kevin dealing with his home life as well as his schoolwork. The author describes an incident in which Kevin's teacher punishes and humiliates him for not knowing the right answers.

One of the central themes of the story is that a father's love can protect and support children when they are going through problems or hard times. For example, the author shows the deep and loving bond between Kevin and his dad when he describes how much the children love having their father home from work and how Kevin's father tries to help him with schoolwork.

The author also develops this theme by invoking the motif of the father's coat pocket, which is warm and deep, just like his father's love:

His father smelt strongly of tobacco for he smoked both a pipe and cigarettes. When he gave Kevin money for sweets he’d say, “You'll get sixpence in my coat pocket on the banisters.”

Kevin would dig into the pocket deep down almost to his elbow and pull out a handful of coins speckled with bits of yellow and black tobacco. His father also smelt of porter, not his breath, for he never drank but from his clothes and Kevin thought it mixed nicely with his grown up smell. He loved to smell his pyjama jacket and the shirts he left off for washing. . . .

Kevin laughed and slipped his hand into the warmth of his father’s overcoat pocket, deep to the elbow.

Part B

Sample Answer

One theme of this story is coming of age, which is revealed through Kevin’s experiences at school and home. In the story, Kevin feels caught between his interactions with his father at home and his teacher at school. Waldo, Kevin’s teacher, humiliates Kevin because his father helped him complete his homework, which is incorrect. Consider the character interaction at the end of the story between Kevin and his father:

“How did it go today?” his father asked.

“All right.” They kept silent until they reached the corner of their own street.

“What about the Latin?”

Kevin faltered, feeling a babyish desire to cry.

“How was it?”

“OK. Fine.”

“Good. I was a bit worried about it. It was done in a bit of a rush. Son, your Da’s a genius.” He smacked him with the paper again. Kevin laughed and slipped his hand into the warmth of his father’s overcoat pocket, deep to the elbow.
Kevin has the “babyish desire to cry,” but he doesn’t let his father know about the problems at school. His restraint shows that through this experience Kevin has matured, and he is protecting his father from feeling the humiliation from his school experience.

Part C

Sample Answer

The author uses the motif of the father’s coat pocket to symbolize the protection of a father’s love. The coat pocket is deep and comforting:

Kevin would dig into the pocket deep down almost to his elbow and pull out a handful of coins speckled with bits of yellow and black tobacco. His father also smelt of porter, not his breath, for he never drank but from his clothes and Kevin thought it mixed nicely with his grown up smell. He loved to smell his pyjama jacket and the shirts he left off for washing.

At the end of the story, Kevin sticks his hand in his father’s coat pocket and decides to lie to him to protect him:

“All right.” They kept silent until they reached the corner of their own street.

“What about the Latin?”

Kevin faltered, feeling a babyish desire to cry.

“How was it?”

“OK. Fine.”

“Good. I was a bit worried about it. It was done in a bit of a rush. Son, your Da’s a genius.” He smacked him with the paper again. Kevin laughed and slipped his hand into the warmth of his father’s overcoat pocket, deep to the elbow.

The descriptions of the coat pocket contribute to the warm and comforting mood of Kevin’s home scenes. The author implies that the pain and humiliation Kevin faces at school is unable to affect Kevin negatively because he has a loving father and family. This family’s love helps Kevin mature into a kind and caring person. The experience shows Kevin that his father is not perfect, and he can make mistakes. It also shows him that some people may look down on his father. But instead of being disappointed, Kevin holds onto his love for his father and makes the decision to protect him the only way he can.

Part D

Sample Answer

The word father in the story has two meanings. First, it implies the love and protection of his biological father. Kevin’s father is a cheerful man who is always willing to help his son and provides a warm and loving home. Kevin’s teacher, on the other hand, is a cold man who ridicules Kevin. The author uses these two “fathers” to develop the theme of fatherly love in the story. Father Waldo represents discipline, restrictions, and strict social hierarchy. At school Kevin is encouraged to be ashamed of his father because of his lack of education and job as a barman. Ironically it’s his father and family who encourage him to value his education:
“We never got the chance,” his mother would say to him. “It wouldn’t have done me much good but your father could have bettered himself. He’d be teaching or something now instead of serving behind a bar. He could stand up with the best of them.”

Thus the author is setting up a choice for Kevin to make. He can choose to reject his roots and embrace the social order of the school or cling to his place as a member of the family. Kevin makes his choice in the end, when he lies to his father to protect him from the shame of not having the correct answers.

Part E

Sample Answer

Your answer might include this information:

One clue that this story is taking place outside of the United States is the author uses common words that are spelled differently such as pyjamas instead of pajamas. Also, the author mentions items that are not used in the United States such as sixpence for money instead of cent or dollar.
Photography

The invention of the camera in the 19th century was a major attraction for many people. They were thrilled to know that they could now capture special moments, save them in a tangible form, and making memories. A camera is a device that allows light to fall on a screen, which is recorded on film or as a digital file the moment you click the Capture button.

Before the invention of modern cameras, people were not able to capture exact images but creating images using chemicals. Modern day cameras use digital technology and perform far better than their earlier counterparts. However, the ability to capture moving objects and record small details was impossible with the earliest cameras.

Directions: Select all the correct answers.

Based on the passage, which two of the following sentences have incorrect parallel structure?

Before the invention of modern cameras, people were not able to capture exact images but creating images using chemicals.

However, modern day cameras use digital technology and perform far better than their earlier counterparts.

They were thrilled to know that they could now capture special moments, save them in a tangible form, and making memories.

The ability to capture moving objects and record small details was impossible with the earliest cameras.

A camera is a device that allows light to fall on a screen, which is recorded on film or as a digital file the moment you click the capture button.

Cat Scratch Disease

(1) The black cat arched its back, flattened its ears, and, with a low hiss, slicing Lucas’ arm with sharp claws. (2) A red line appeared on Lucas' skin, and he gritted his teeth against the sting. (3) Little did he know that bacteria called Bartonella henselae had just entered his body. (4) Cat scratch disease (CSD), sometimes called cat scratch fever, is a bacterial infection that can affect humans who have been scratched or bitten by a cat. (5) The symptoms of CSD include fever, headache, fatigue, poor appetite, and swollen lymph nodes. (6) Major complications are rare. (7) For healthy individuals, either the body’s immune system can clear the infection or the patient can take an antibiotic. (8) About 40 percent of cats will carry the bacteria during their lifetime. (9) Cats don’t have any symptoms once infected, so pet owners cannot tell if their cats are carriers. (10) The best ways to prevent CSD are washing cat bites and scratches with soap and water, do not allow cats to lick your wounds, and going to the doctor at the first sign of wound infection.

Which sentence from the passage demonstrates an error in parallel structure?

A. sentence 2
B. sentence 10
C. sentence 7
D. sentence 5
Question 3.

Directions: Select the correct answer from each drop-down menu.
Choose the correct phrase to make each sentence parallel.

**Obtaining Raw Materials**

Humans use many raw materials—such as wood, coal, oil, and stone—to

However, obtaining these materials can often damage the environment and disturb natural ecosystems. Logging, for example, can destroy plant and animal habits, while mining can permanently alter landscapes and pollute nearby bodies of water. While raw materials are essential to everyday human life, the consequences of extracting those materials could be dire. To maintain healthy ecosystems, people must be aware that obtaining raw materials has an impact not only on the Earth

Question 4.

(1) Annie Oakley was a sharpshooter and entertainer who lived from 1860 to 1926. (2) She not only is known for her amazing shooting abilities but also her work to educate and inspire women of her time.

(3) When Annie joined *Buffalo Bill’s Wild West* in 1885, the show not only had never hired a female cast member but also had never featured narratives that involved women. (4) Through her performances, Annie showed that women could be tough, self-reliant, and equal to men.

(5) Off the stage, Annie used her skills and knowledge to help other women. (6) She claimed to have taught 15,000 women about how to shoot guns and defending themselves.

(7) In one article that appeared in a Cincinnati newspaper, Annie described how to conceal a gun under an umbrella if a woman was walking on the street alone.

(8) Annie avoided politics, so she never aligned with the women’s suffrage movement in the early 1900s. (9) However, she did speak out for women’s rights, saying that women should be able to work outside the home, women should get equal pay for equal work, and women should be able to defend themselves.

Which sentence from the passage demonstrates an error in parallel structure?

- A. sentence 2
- B. sentence 3
- C. sentence 9
- D. sentence 4

Question 5.

Directions: Select the correct text in the passage.

Which two sentences show incorrect parallel structure?

**The Spirit of Sportsmanship**

Have you ever felt bad because you could not win a game against a rival team? People commonly feel sad or feeling withdrawn because of failure. Winning a game or any other competition is a proud moment for every sports player.

Many people are overwhelmed by their victory but getting depressed by failures is easy. Even the most successful people have had their share of failures. Winning or losing never matters, but your participation matters. If you stop trying, you will stop learning.
Air Pollution

Air pollution is one of the major concerns of industrialized nations. Air becomes polluted when the quantity of harmful gases increases. Air helps us \[ \text{climate regulation} \]. Breathing polluted air is equivalent to inviting illness. Various respiratory problems like asthma and respiratory tract infections can be attributed to air pollution.

Polluted air is not only harmful for us \[ \text{us} \] The responsibility to make air cleaner lies with every one of us. Using renewable energy sources will reduce air pollution significantly.

Microelectronics

Do you use your cell phone or tablet often? Well, you should be grateful to the field of microelectronics. This field of electronics has redefined technology and \[ \text{our lives} \]. Its application in the field of mobile technology has enabled companies to manufacture powerful smart devices. Indeed, this field has revolutionized the way we use technology and \[ \text{us} \] become more informed and connected.

The Mexican War

In 1836, Texas declared its independence from Mexico. Mexico, however, did not officially recognize the independence. When the United States annexed Texas in 1845, Mexico saw this as an act of aggression and \[ \text{the U.S. and Mexico also had a dispute over which river separated the two countries. The U.S. claimed that the border was the Rio Grande, whereas Mexico claimed it was the Nueces River, which is farther north. President James K. Polk ordered General Zachary Taylor and his troops to the north bank of the Rio Grande. Mexico viewed this as an invasion of their country and} \] The U.S. declared war on Mexico on May 13, 1846. Shortly after the war began, Congressman David Wilmot of Pennsylvania submitted a proposal to Congress that would have outlawed slavery in any land acquired from Mexico. The amendment, known as the Wilmot Proviso, was not approved by Congress. However, it raised the issue of how the United States should deal with the expansion of slavery in new U.S. territory. The Mexican War continued until the U.S. and Mexico signed the Treaty of Guadalupe Hidalgo. In this treaty, Mexico not only recognized the Rio Grande as the border between Texas and Mexico \[ \text{Parts of Wyoming and Colorado also became U.S. land. The U.S. paid Mexico $15 million dollars for the land.} \]
Question 9.

(1) Annie Oakley was a sharpshooter and entertainer who lived from 1860 to 1926. (2) She not only is known for her amazing shooting abilities but also her work to educate and inspire women of her time. (3) When Annie joined Buffalo Bill’s Wild West in 1885, the show not only had never hired a female cast member but also had never featured narratives that involved women. (4) Through her performances, Annie showed that women could be tough, self-reliant, and equal to men. (5) Off the stage, Annie used her skills and knowledge to help other women. (6) She claimed to have taught 15,000 women about how to shoot guns and defending themselves. (7) In one article that appeared in a Cincinnati newspaper, Annie described how to conceal a gun under an umbrella if a woman was walking on the street alone. (8) Annie avoided politics, so she never aligned with the women’s suffrage movement in the early 1900s. (9) However, she did speak out for women’s rights, saying that women should be able to work outside the home, women should get equal pay for equal work, and women should be able to defend themselves.

What is the best way to revise sentence 6?

A. She claimed to have taught 15,000 women about how to shoot guns and how to defend themselves.
B. She claimed to have taught 15,000 women about how to shoot guns and also she taught about defending themselves.
C. She claimed to have taught 15,000 women about how to shooting guns and defend themselves.
D. She claimed to have taught 15,000 women about shooting guns and to defend themselves.

Question 10.

At the high school talent show, Keegan walked onto the stage, sat at the piano, and, with everyone in the audience watching him, belting out a well-known show tune.

Which underlined part of the sentence, if any, contains an error?

A. with everyone in the audience watching

B. No error
C. walked onto the stage
D. belting out a well-known show tune
Answers: Language Arts - Parallel Structure

1. --
2. B
3. --
4. A
5. --
6. --
7. --
8. --
9. A
10. D
Explanations: Language Arts - Parallel Structure

1. Parallel structure (or parallelism) means repeating the same pattern of words or phrases to show that two or more ideas have the same importance. Elements that are alike in content and function should have the same grammatical form. The first sentence "They were thrilled to know that they could now capture special moments, save them in a tangible form, and making memories" is incorrect because the verbs "capture," "save," and "making" are not parallel. In order to make it parallel, the phrase "making memories" should be changed to its infinitive form "make memories." The sentence "Before the invention of modern cameras, people were not able to capture exact images but creating images using chemicals" is incorrect because the verb phrase "were not able to capture" and the verb "creating" are not parallel. The sentence can be corrected as follows: "Before the invention of cameras, people were not able to capture exact images but were able to create images using chemicals."

2. To achieve correct parallel structure, all items in a series must be in the same form. In sentence 10, the second item does not begin with a gerund. The correct way to write the sentence is, "The best ways to prevent CSD are washing cat bites and scratches with soap and water, not allowing cats to lick your wounds, and going to the doctor at the first sign of wound infection."

3. Parallel structure (or parallelism) means repeating the same pattern of words to show that two or more ideas have the same function. It gives balance to a piece of writing and makes the writing easier to read. In the first sentence, there is correct parallel structure because all the elements in the series follow the same format ("construct buildings, make consumer products, and generate electricity"). In the last sentence, there is correct parallel structure because "not only on the Earth" is parallel to "but also on its inhabitants."

4. To achieve correct parallel structure, items that appear after correlative conjunctions must be in the same form. In sentence 2, the first item is a verb phrase, but the second item is just a noun. The correct way to write the sentence would be, "She is known not only for her amazing shooting abilities but also for her work to educate and inspire women of her time."

5. Parallel structure (or parallelism) means repeating the same pattern of words or phrases to show that two or more ideas have the same importance. Elements that are alike in content and function should have the same grammatical form. The sentence "Many people are overwhelmed by their victory but getting depressed by failures is easy" is incorrect because the phrase "getting depressed by failures is easy" is not parallel with the phrase "are overwhelmed by their victory." The sentence can be corrected as follows: "Many people are overwhelmed by their victory and easily get depressed by their failures."

6. Parallel structure (or parallelism) means repeating the same pattern of words or phrases to show that two or more ideas have the same importance. Elements that are alike in content and function should have the same grammatical form. The first sentence "They were thrilled to know that they could now capture special moments, save them in a tangible form, and making memories" suggests that polluted air, in addition to harming human beings, can also affect animals and plants. The phrase "but also for animals and plants" is correct because it is parallel with the phrase "not only harmful for us." The phrase "not only harmful for us" suggests that polluted air, in addition to harming human beings, can also affect animals and plants.

7. Parallel structure (or parallelism) means repeating the same pattern of words or phrases to show that two or more ideas have the same importance. Elements that are alike in content and function should have the same grammatical form. The verb phrase "was revolutionized" is in the present perfect tense, and the verb phrase "has helped" is also in the present perfect tense, which makes the sentence parallel. The sentence "Before the invention of modern cameras, people were not able to capture exact images but creating images using chemicals" is incorrect because the verb phrase "were not able to capture" and the verb "creating" are not parallel. The sentence can be corrected as follows: "Before the invention of cameras, people were not able to capture exact images but were able to create images using chemicals."

8. Parallel structure (or parallelism) means repeating the same pattern of words to show that two or more ideas have the same function. Parallel structure balances a piece of writing and makes the writing easier to read. The sentence "When the United States annexed Texas in 1845, Mexico saw this as an act of aggression and ended diplomatic relations with the U.S." has parallel structure because "saw this as an act of aggression" is parallel to "ended diplomatic relations with the U.S." The sentence "Mexico viewed this as an invasion of their country and sent their troops across the Rio Grande" has parallel structure because "viewed this as an invasion of their country" is parallel to "sent their troops across the Rio Grande."

Copyright © 2017 Edmentum - All rights reserved.
9. To achieve parallel construction on either side of the conjunction, both items should be in the same form. In sentence 6, the first item starts with "how to," but the second item is a gerund. The correct way to write the sentence would be, "She claimed to have taught 15,000 women about **how to shoot** guns and **how to defend** themselves."

10. The last item in the series is not in the same form as the first two items. To achieve correct parallel construction, all items must be in the same form. The last item should start with a past tense verb. To correct the parallel construction, the sentence would say, "At the high school talent show, Keegan **walked** onto the stage, **sat** at the piano, and, with everyone in the audience watching him, **belted** out a well-known show tune."
Study Island 10th Grade Reading - Connotation and Denotation

Question 1.
Which of these words has the most positive connotation?
- A. frightening
- B. sinister
- C. menacing
- D. foreboding

Question 2.
Konstantin faced an epic battle against time in order to finish his research paper, drop off his library books, and make it to his part-time job.

What is the connotative meaning of the word "epic" as used in this sentence?
- A. unusual
- B. lengthy
- C. difficult
- D. disordered

Question 3.
The words hit, strike, thump, and smite all have similar meanings. Which word would an author use to show the strongest connotation?
- A. smite
- B. hit
- C. thump
- D. strike

Question 4.
So now Della's beautiful hair fell about her, rippling and shining like a cascade of brown waters. It reached below her knee and made itself almost a garment for her. And then she did it up again nervously and quickly. Once she faltered for a minute and stood still while a tear or two splashed on the worn red carpet.

On went her old brown jacket; on went her old brown hat. With a whirl of skirts and with the brilliant sparkle still in her eyes, she cluttered out of the door and down the stairs to the street.

from "The Gift of the Magi" by O. Henry

Read the following sentence from the passage.
"With a whirl of skirts and with the brilliant sparkle still in her eyes . . ."

What is the dictionary meaning of the word whirl?
- A. a world
- B. a turn
- C. a transport
- D. a wall
Renewable Energy

Turning on your computer or charging your cell phone requires electricity. To produce electricity people must harness power from an energy source. Coal burning power plants and nuclear fission reactors are two popular methods for producing electricity. Although these energy sources can produce ample electricity for consumption, coal power plants and nuclear fission reactors have notable problems, however. As with all fossil fuels, burning coal creates air pollution and greenhouse gases that add to the planet's global warming problem. Even though nuclear fission reactors only produce steam and no air pollution, these power plants do create physical nuclear waste that is difficult to dispose of. So, how do people solve their energy needs without polluting the planet?

One of the most promising forms of energy production comes from renewable energy sources. Renewable energy refers to the harnessing of energy from systems that naturally replenish over time. Solar power and wind power are two well-known examples of renewable energy, but renewable energy comes in many forms. For example, geothermal energy harnesses the energy produced from geysers and geothermal vents; tidal energy harnesses the power produced by ocean tides.

Nevertheless, renewable energy sources do have their limits. Unlike certain nonrenewable energy sources, such as fossil fuels or nuclear, location is extremely important for renewable energy sources. For instance, solar power can't produce much electricity in regions that experience heavy cloud cover, and wind power cannot produce electricity in areas without wind. Also, powering even a small town often requires many wind turbines or solar panels. These points are important to weigh as people seek to address future energy concerns.

Renewable energy sources are promising because these systems produce electricity without creating much pollution. As humanity's need for electricity continues to grow, renewable energy could play a crucial role in the future.

Directions: Select all the correct answers.
Which words have a similar denotation to the word replenish as it is used in the passage?

- rekindle
- regenerate
- reinforce
- refresh
- redevelop

Copyright © 2017 Edmentum - All rights reserved.
Cappadocia

Cappadocia, a region in Anatolia in central Turkey, is known for its dramatic landscape scattered with unique rock formations. Over the years, forces of nature such as wind and rain have caused the volcanic rock of this region to take the shape of cones, pillars, towers, and "fairy chimneys," making the landscape look like something out of a fairytale. Humans have also built caves into the rock, which contain fine examples of Byzantine art.

Göreme National Park in Cappadocia is a World Heritage Site. People can visit the park to enjoy the stunning rock formations and to get a glimpse into the rich history of the region. Visitors can explore the towns nearby, or they can even cycle through the rocky terrain of Cappadocia. The hot air balloon ride over the landscape also entices people to visit the region and enjoy a bird's eye view of the valleys below.

Read the following sentence from the passage.

Cappadocia, a region in Anatolia in central Turkey, is known for its dramatic landscape scattered with unique rock formations.

What is the connotation of the word **dramatic** in the sentence?

A. complex
B. messy
C. rocky
D. striking

Question 7.

The words traditional, conservative, conventional, and old-fashioned all have similar meanings. Which one would an author use to express a negative opinion about a person?

A. old-fashioned
B. traditional
C. conservative
D. conventional
Question 8.

**Homecoming**
by A. Gautam

I was off to see my father past the fog and the mist.
The newspaper crumpled in my fist,
and frost lay like stardust on my shoulders.
My feet trembled against the icy floor.

I was off to meet my father at the train station.
Our photograph was warm in my coat pocket.
The bench was cold like a broken friendship.
The engine whizzed past my reddish ears.

I was off to find my father among the happy faces—
and people swarmed as bees attacking a stone
that had just flung past their wounded hive.
Then, he appeared like the sun peeping through the clouds.

My father—finally home—in my arms—melted the winter.
He returned—whole—after all these years
and gave life to my photograph—
now, warmer than all summers of my lifetime.

In the second stanza, the description "cold like a broken friendship" suggests that the bench was

- A. hazardous to the speaker.
- B. lacking in human affection.
- C. covered in ice and snow.
- D. located in an outdoor area.

Question 9.

"Jordan!" Misty screamed across the hall as she ran towards her friend. "Can you believe this? After three months of rehearsals, opening night is finally here!"
"It is pretty cool!" Jordan replied. She sneaked a peek through the closed curtains and said, "The set is so Hollywood. Getting help from Mrs. Kramer's art class was one of the best ideas Ms. Jones had this year." Misty nodded her head in approval. "This is going to be the best production of *The Sound of Music* ever!" Jordan exclaimed.

Misty turned on her heels and shouted as she walked away, "I better go and review my lines one more time before curtain call."
"Break a leg, Misty. I'll be in the sound booth working my magic," Jordan said.

In this sentence from the passage, the word *Hollywood* refers to

- A. a motion-picture film background.
- B. the professional look of the set.
- C. the name of the production.
- D. a setting in southern California.
My Baby Sister
by A. Gautam

Fresh like morning dew
On a new leaf that has just sprung
After the longest winter
She rests on the leaf of the blanket
—pink as her soft cheeks
And blossoms in her sleep
Unaware of the world that has turned
Upside down because of her
And only for her

Read the following line from the poem.

"Fresh like morning dew"

The speaker uses the connotative meaning of "fresh" to mean

- A. highly fashionable.
- B. newly arrived.
- C. not decayed.
- D. full of attitude.
Answers: Reading - Connotation and Denotation

1. A  
2. C  
3. A  
4. B  
5. --  
6. D  
7. A  
8. B  
9. B  
10. B
Explanations: Reading - Connotation and Denotation

1. All of these words mean "scary"; however, "frightening" is the least negative way to describe it.

2. Words have connotations (suggestive meanings) and denotations (literal or dictionary meanings). One definition of an epic is "a long narrative poem that recounts the adventures of a heroic figure." In this context, however, the word "epic" is used connotatively to suggest that Konstantin will find it difficult to complete all of his tasks on time.

3. The word "smite" has a strong connotation historically. Its use dates back the King James translation of the Bible.

4. Words have both denotations (literal meaning) and connotations (implied meaning). The word whirl means to turn or spin quickly. This is a denotation. It can also imply a flurry or a flamboyant movement with a burst of energy. This is its connotation.

5. While connotation refers to the implied or inferred meanings of a word, denotation refers to the literal dictionary definition of a word. The word "replenish" means to fill or build up again or to stock and supply anew. The words "regenerate" and "refresh" have similar denotations to the word "replenish" as it is used in the passage. The passage discusses how renewable energy sources regenerate or refresh over time.

6. Connotation is the suggested meaning of a word. The word "dramatic" literally means "relating to drama." In this context, the word is used to describe the landscape of Cappadocia and therefore means "striking."

7. Although the dictionary defines all of these words similarly, "old-fashioned" had the most negative connotation. It is usually used to mean "out-dated" or "out of style."

8. Words have both denotations (literal meanings) and connotations (suggestive meanings). The word "cold" can mean "having a low temperature" or "without the warmth of affection." The phrase "cold like a broken friendship" suggests that the bench was cold due to a lack of affection rather than a lack of physical warmth.

9. In this passage, the word Hollywood is used to imply that the set that was created for the play looks so good that it could be used for a professional production.

10. Words have both denotations (literal meaning) and connotations (implied meaning). The word "fresh" has both connotative and denotative meanings. In this poem, the speaker describes a baby and compares her to the morning dew and a new leaf. Therefore, the reader can assume the word "fresh" means that the baby is newly arrived.
Before the Journey

I am standing on the rooftop
Where I can see the city
The roads are like spaghetti straps
And cars are dots rolling by
The sky is so big and people are tiny
There is a lone star in the sky
Shining during the day
Hours ahead of the moon
The star and I face the world
It will always be in that spot
And where I will be tomorrow
I know not
I can see the ocean
On the other side
Its blue Jell-O waves saying goodbye
Today, the universe has expanded
All around me
Breathing in my city air
Before the farewell
My yellow bus is a reality
I climb down and leave

What is the impact of the phrase "spaghetti straps" and "Jell-O waves" in the poem?

- **A.** It emphasizes that the lone star is a shooting star.
- **B.** It reflects the imagination of the speaker.
- **C.** It reiterates the oddness of being on a rooftop.
- **D.** It symbolizes the speaker's powerful hunger.
Radha and Chinua sat facing each other in the bright-lit café. They had come here to say important things to each other, but neither of them could find the right word to begin. Radha hugged the warm coffee mug with her fingers clasped around it. She looked into Chinua’s eyes for a clue. They revealed nothing. Everyone else in the café seemed to be bursting with life.

The waitress had come and gone a few times. She had sensed a thick and foggy layer of silence between the couple and did not want to break through the fog.

Chinua had rolled up the menu in his hands and he, too, was reading Radha. *When did it become difficult for us to even say a word?* he wondered. Chinua felt like he was trying to fight a dream and wake up into reality. But, he could not.

“So, this is the last time we will see each other in this life,” Radha began with words like steel—words that cut through Chinua’s heart. She had decided to join the Peace Corps and leave for a country torn by war.

Chinua wanted no part in the life Radha had chosen. He had seen and suffered too much to choose chaos voluntarily. Besides, he was on a Fulbright scholarship; he could not leave now.

“I wish you all the luck in this galaxy,” Chinua managed to say. His utterance hung like a prayer between him and Radha. At once, they both closed their eyes and wished for the words to shield Radha from all the dangers in the world.

What does the author mean by "a thick and foggy layer of silence"?

- A. The friendship of Radha and Chinua is strong yet complex.
- B. The tension between Radha and Chinua is apparent.
- C. The bright-lit café has a misty atmosphere that night.
- D. The waitress has weak eyesight and feels foggy at night.

These gray walls are sterilized. Neither plants nor real flowers can live here for much longer. Sunlight does not enter through the door. The window only faces a jungle of concrete. People wearing masks and green scrubs come and go. Sometimes, they remember to smile. I can hear wheels rolling on the smooth floors in the hallway. Once in a while, someone wails in sorrow. Mostly, everything is as quiet as a drying lake. I have only been here for a few days, but seconds feel like decades. They do not know how painful it is for me to just lay here. Although my leg feels heavier than a teenager’s heart after the first heartbreak, I feel I could rip the cast and run. I could run endlessly against the waves of the ocean. I could run under the vast sky glowing with moonlight—forever.

What does "sterilized" imply in this passage?

- A. colorless
- B. without life
- C. cleansed
- D. diseased
Sighting
by A. Gautam

CHARACTERS:
IVAN, a writer
EDNA, Ivan's best friend, an attorney
MYSTERIOUS CHILD

Stage Set: Living room. Ivan and Edna are sipping coffee near the fireplace. Ivan has just returned from camping in the woods.

IVAN: What is the point of this conversation if you will not believe me?
EDNA: But, I do believe you. (her facial expression exposes her disbelief)
IVAN: I do not sense it. What part of it is hard to understand? Forget about it. (looks outside the window to the overcast sky) If only there was a way to know . . .
EDNA: What happened to her? How did she end up alone in the forest?
IVAN: She was wearing a white gown. She had the feet of an angel. The back of her gown floated in the air, and she was running when I found her.
EDNA: And, she collapsed? (knitting her brow)
IVAN: When she did not see the tree in front of her and hit it. I lifted her in my arms—she was cotton—and brought her into my tent. She had no possessions that could reveal her identity. But, trust me; she was the most innocent thing to walk this planet.
EDNA: And, she was gone? Just like that?
IVAN: Yeah. With my shoes and a jacket. Did I tell you she had been running barefoot? I had bandaged her feet and put her in a sleeping bag. I thought I was watching her the whole night—you know—feeling protective of her. Everything, even a shadow seemed like a badger to me that night. Anyway, I must have blinked. She was gone.
EDNA: So you walked home barefoot?
IVAN: No, I drove my jeep barefoot. I felt that I had heard soft, shuffling steps in my dream. Have you ever heard a butterfly walk? Where did the little girl go? Where did she come from?
EDNA: And, you have nothing of a keepsake from her?
IVAN: No, but she has mine. I can just picture her tying the shoes into one thousand knots so they would not fall off from her tiny feet. Can you imagine a six-year-old girl wearing a man's jacket and shoes? She must have looked like a walking dollhouse with giant shoes!
EDNA: Are you sure that it wasn't a badger who stole your things?
IVAN: (gets up from the couch, goes to the window, and lets out a long sigh) Sometimes, I wish I could live among books. The characters I create have more faith in me than the real people I meet every day.

The description "a walking dollhouse with giant shoes" shows

A. how much she resembles a badger.

B. how the little girl steals from people.

C. how unusual the girl's situation is.

D. how badly she needs food and shelter.
Radha and Chinua sat facing each other in the bright-lit café. They had come here to say important things to each other, but neither of them could find the right word to begin. Radha hugged the warm coffee mug with her fingers clasped around it. She looked into Chinua’s eyes for a clue. They revealed nothing. Everyone else in the café seemed to be bursting with life.

The waitress had come and gone a few times. She had sensed a thick and foggy layer of silence between the couple and did not want to break through the fog.

Chinua had rolled up the menu in his hands and he, too, was reading Radha. *When did it become difficult for us to even say a word?* he wondered. Chinua felt like he was trying to fight a dream and wake up into reality. But, he could not.

“So, this is the last time we will see each other in this life,” Radha began with words like steel—words that cut through Chinua’s heart. She had decided to join the Peace Corps and leave for a country torn by war.

Chinua wanted no part in the life Radha had chosen. He had seen and suffered too much to choose chaos voluntarily. Besides, he was on a Fulbright scholarship; he could not leave now.

“I wish you all the luck in this galaxy,” Chinua managed to say. His utterance hung like a prayer between him and Radha. At once, they both closed their eyes and wished for the words to shield Radha from all the dangers in the world.

Which of these best shows the painful reality that Radha and Chinua are facing?

- **A.** The waitress had come and gone a few times.
- **B.** Everyone else in the café seemed to be bursting with life.
- **C.** Radha hugged the warm coffee mug with her fingers clasped around it.
- **D.** . . . Radha began words like steel—words that cut through Chinua's heart.
Sighting
by A. Gautam

CHARACTERS:
IVAN, a writer
EDNA, Ivan's best friend, an attorney
MYSTERIOUS CHILD

Stage Set: Living room. Ivan and Edna are sipping coffee near the fireplace. Ivan has just returned from camping in the woods.

IVAN: What is the point of this conversation if you will not believe me?
EDNA: But, I do believe you. (her facial expression exposes her disbelief)
IVAN: I do not sense it. What part of it is hard to understand? Forget about it. (looks outside the window to the overcast sky) If only there was a way to know . . .
EDNA: What happened to her? How did she end up alone in the forest?
IVAN: She was wearing a white gown. She had the feet of an angel. The back of her gown floated in the air, and she was running when I found her.
EDNA: And, she collapsed? (knitting her brow)
IVAN: When she did not see the tree in front of her and hit it. I lifted her in my arms—she was cotton—and brought her into my tent. She had no possessions that could reveal her identity. But, trust me; she was the most innocent thing to walk this planet.
EDNA: And, she was gone? Just like that?
IVAN: Yeah. With my shoes and a jacket. Did I tell you she had been running barefoot? I had bandaged her feet and put her in a sleeping bag. I thought I was watching her the whole night—you know—feeling protective of her. Everything, even a shadow seemed like a badger to me that night. Anyway, I must have blinked. She was gone.
EDNA: So you walked home barefoot?
IVAN: No, I drove my jeep barefoot. I felt that I had heard soft, shuffling steps in my dream. Have you ever heard a butterfly walk? Where did the little girl go? Where did she come from?
EDNA: And, you have nothing of a keepsake from her?
IVAN: No, but she has mine. I can just picture her tying the shoes into one thousand knots so they would not fall off from her tiny feet. Can you imagine a six-year-old girl wearing a man's jacket and shoes? She must have looked like a walking dollhouse with giant shoes!
EDNA: Are you sure that it wasn't a badger who stole your things?
IVAN: (gets up from the couch, goes to the window, and lets out a long sigh) Sometimes, I wish I could live among books. The characters I create have more faith in me than the real people I meet every day.

What is the effect of the line "Have you ever heard a butterfly walk?"

A. It helps Edna believe in the story.
B. It reinforces that Ivan is a writer.
C. It shows that the tale is fabricated.
D. It explains the little girl's disappearance.
Adriana was not looking forward to going to the wedding. She could not feign emotions, and today she was feeling especially sad. Ever since her heart was broken into a million little pieces, she did not want to be around happy couples. *Who wants to watch another heartbreak in the making anyway?* she sulkily thought. *If the bride wasn't my best friend's sister, I could skip the wedding.* Adriana remembered that she had never put on her make up or dressed up for an occasion in such low spirits. As Vivi, her best friend, honked the car horn three times in the driveway, Adriana took sluggish steps toward the front door. While she dragged herself down the stairs, she felt her heart, as heavy as lead, slowing her down.

"Don't look like a truck ran over your heart," Vivi, already driving toward the beach—the location of the wedding—said in a hurry. "Come on. Move on. Stop moping!" *This is exactly the kind of talk I hate. I know I have to get over it. Why keep stating the obvious!* Adriana thought. These days, she did not say every thought that crossed her mind. She tried to block the flood of her emotions with an invisible dam. "OKAY. Just take me there," she revealed her frustration.

For Adriana, the wedding ceremony and the reception was a blur. The only thing she remembered from the day was watching an old couple walking on the beach holding hands. Their wrinkled hands and slow walk spoke volumes about their love for each other. That chilly afternoon, they walked on despite the waves splashing against their bare feet. Adriana remembered learning how to smile again.

Read this sentence from the story.

She tried to block the flood of her emotions with an invisible dam.

What is the effect of this description on the reader?

A. It reflects how Adriana uses her knowledge of mechanics in real life.

B. It reinforces the idea of friendship giving Adriana moral support.

C. It shows how big of a struggle it is for Adriana to control her emotions.

D. It emphasizes the lack of understanding Vivi shows for her friend.
Mrs. Tang walked to my house
Covering one block in fifteen minutes
Only dragging the left foot forward
The right foot followed suit somehow
Mrs. Tang walked with a stooped back
Without a cane
Breathing heavily again and again
Her gown was like a curtain—
Drifting lazily
Mrs. Tang wore her husband's sandals—
He had passed years ago
Just after she had retired
To travel the world with him
Now she walked around the block
Wearing him
Mrs. Tang reached my front porch
Bearing a smile and a jar of cookies
For my little girl
Who she said
Reminded her of youth
And happiness

What is the effect of the descriptive language of this poem?

- A. It vividly portrays Mrs. Tang and helps create a sympathetic tone.
- B. It acutely describes the speaker's little girl's youth and happiness.
- C. It helps the reader imagine the speaker's emotions using few words.
- D. It helps create a passionate tone while describing Mrs. Tang's insanity.
Question 9.

Strength
by A. Gautam

CHARACTERS:
DAN, a high school senior
GINA, Dan's little sister
KEV, Dan's best friend
REED, the school bully

Stage Set: Late in the evening in the football field. Dan sits on a bench drenched in sweat. His eyes are swollen and the lower lip has a cut. He appears angry and sad at the same time. Kev is trying to console and pacify him.

KEV: You are not serious, are you?
DAN: What do you mean? How many years of humiliation can a sane person take?
KEV: Reed is just a bully—a bull that charges at anything red. Don't let him trap you!
DAN: Kev, he hasn't just hurt my face. My heart and pride are bleeding. He said—he said—he insulted my sister.
KEV: And, you will stoop to his level?
DAN: No, I won't. I will stand up for my family.
KEV: I think Gina already respects you for your decency.
DAN: I am a boy, Kev! I am not Martin Luther King, Jr. or Gandhi! I am just a boy with feelings. Right now, I am bleeding. The only bandage that would stop my hemorrhage is revenge.
KEV: But, Reed is a giant.
DAN: And, I've learned karate.
KEV: Why don't you invite him to a match? Beat him at the school championship in front of all those people. That would be a decent way to beat him. That would be you!
DAN: Yeah. I heard he has a green belt.
KEV: And, you have a black one. Defeat him in a sport and not in a stupid fight.
DAN: So, I just keep on drinking the poison till the day of the match?
KEV: No, turn his insulting words into energy. Turn your anger into power.

What does “the only bandage that would stop my hemorrhage is revenge” imply?

A. that Reed does not intend to push Dan to a breaking point
B. that Kev wants his friend to heal from the pain of humiliation
C. that Dan has been worked up from years of being bullied
D. that Gina is actually upset about Reed's insulting words
Question 10.

CHARACTERS:
MAYURI, a high school junior
MASAKO, Mayuri's best friend
RYAN, a fraud who fools girls
AITO, the Student Body President

Stage Set: A cloudy afternoon in the park. Mayuri and Masako come here after school every day.

MASAKO: I mean, how can I describe him? He is sunshine. His voice is like the ocean waves. His eyes are stars on a moonless night.

MAYURI: I get it. He is awesome.

MASAKO: Gosh! What is wrong with you, Mayuri? When you were smitten, you were all about Aito. It was Aito this, Aito that . . . all day. Now, you can’t even hear me say a thing.

MAYURI: I am sorry, Masako. Please go on. What does he like?

MASAKO: Forget it.

MAYURI: No. I want to know about this guy you like.

MASAKO: Well, he likes poetry and music. Yeah, he is an athlete, but he has a soft side. He is like the coconut, you know. Oh, and he rescues stray animals in his free time. He is like—perfect!

MAYURI: Will your parents like him, too?

MASAKO: Hey, take it one day at a time. I have not thought about that far yet. Today, he wrote me a poem. It goes like this: Nobody, not even rain has such small hands. He said my hands are like petals and called me a rose.

MAYURI: I know that one. It's by e. e. cummings.

MASAKO: No. Ryan Jennings, silly.

MAYURI: I can write the saddest lines tonight.

MASAKO: What are you talking about?

MAYURI: I am quoting Pablo Neruda. This Ryan guy is playing you, sweetheart. At least, the poem he said he wrote for you is by e. e. cummings.

MASAKO: You know what. Forget it. Your jealousy is a fog that blinds you. And, your selfishness stops you from being happy for me.

MAYURI: Forgive me for being honest. Did you even ask me about my day? Did you even know that my parents are separating? Today is the end of the world for me. Dark clouds hover everywhere. It will rain endlessly—raindrops bigger than your hands! (sighs and sobs, after a pause) First, Aito dumped me, and now my parents are splitting. All you care about is that lying Ryan.

MASAKO: I had no idea.

MAYURI: Honey, you never have any idea. Step out of your castle in the clouds and peer into the reality! And lose the metaphorical language. It is not your style. You don't have to sound like the guy you like!

What is the impact of the line "Step out of your castle in the clouds and peer into the reality!" in this play?

- A. It reinforces Mayuri's scorn for Masako's happy family.
- B. It portrays Mayuri's bitterness for Aito, who dumps her.
- C. It reflects Mayuri's disgruntlement toward Masako.
- D. It shows Mayuri dislikes it when Ryan composes poems.
Answers: Reading - Impact and Tone

1. B
2. B
3. B
4. C
5. D
6. B
7. C
8. A
9. C
10. C
Explanations: Reading - Impact and Tone

1. The similes and metaphors used in this poem reflect the imagination of the speaker. The author uses these descriptions to show how the speaker views the world from his or her perspective.

2. The phrase "a thick and foggy layer of silence" describes how the waitress perceives Radha and Chinua's interaction. Non-verbal communication tells a lot about people. The phrase implies that the silence between the couple reveals an apparent tension.

3. While "sterilized" in the medical sense means "made free from bacteria," in this passage it means "without life." The setting of this passage is a hospital. The narrator feels gloomy and implies that flowers and people cannot thrive in this lifeless atmosphere for much longer.

4. In this play, the situation of the little girl, as Ivan describes, is highly unusual. In addition to her strange sighting in the forest, her wearing of a man's jacket and shoes is also worth noticing.

5. In this passage, Radha's words state that she is meeting Chinua for the last time. These words not only reflect the reality but also hurt Chinua. The finality implied by Radha's statement cause the pain.

6. The play shows that Ivan is a writer through his dialogue. He uses poetic language and rich description while talking about the little girl with his friend Edna.

7. In this story, the author describes the thought processes in Adriana's head as she tries to face and overcome heartbreak. The sentence shows that Adriana needs to control her powerful emotions with a lot of determination. The author uses rich language to describe this process.

8. In this narrative poem, the author vividly describes the act of Mrs. Tang coming to the speaker's house with a jar of cookies. The detailed description shows how painful it is for Mrs. Tang to walk a block, how intensely she misses her husband, and how tenderly she loves the speaker's little girl. The language creates a sympathetic tone.

9. In this play, Dan reveals that he has been dealing with Reed's intolerable behaviors for a long time, and he has been worked up about it. The author reflects the fact that Dan has reached his breaking point when Dan says that he is ready for revenge. The author uses a powerful metaphor to state Dan's emotions.

10. Mayuri, upset by her friend's oblivious nature, asks her to be realistic. Mayuri uses harsh words to command Masako to be grounded. This also reveals frustration on Mayuri's part.