

Date: _____

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Student Name/ID#: _____

Total Score:

/ 100

ARCHBISHOP WILLIAMS HIGH SCHOOL - AWHS SUMMER MATH ASSIGNMENTS 2021: SECTION 1

Students Entering ALGEBRA I (All levels) - Summer Assignment

INSTRUCTIONS: This assignment is to help prepare you for Algebra I by helping you recall key, foundation topics. Answer all questions. SHOW ALL SUPPORTING WORK as required by the problem. Do your own work.

Each problem has a topic resource name which you can use to look up the topic covered.

QUESTION 1

 /1

Topic Resource: Place Value

Select the place value of the underlined digit: 1.230

- | | |
|--|---------------------------------|
| A <input type="checkbox"/> tenths | B <input type="checkbox"/> tens |
| C <input type="checkbox"/> thousandths | D <input type="checkbox"/> unit |
| E <input type="checkbox"/> hundredths | |

QUESTION 2

 /1

Topic Resource: Place Value

Select the place value of the underlined digit: 12.4908

- | | |
|--|-----------------------------------|
| A <input type="checkbox"/> hundredths | B <input type="checkbox"/> tenths |
| C <input type="checkbox"/> ten-thousandths | D <input type="checkbox"/> tens |
| E <input type="checkbox"/> thousandths | F <input type="checkbox"/> unit |

QUESTION 3

 /1

Topic Resource: Place Value

Round the number to the underlined place value position: 54.381

A ☐ 54

B ☐ 54.4

C ☐ 50

D ☐ 54.3

QUESTION 4

 /1**Topic Resource: Rounding Decimals**

Round the number to the nearest hundredth: 45.7215

A ☐ 45.722

B ☐ 45.72

C ☐ 45.721

D ☐ 45.73

QUESTION 5

 /1**Topic Resource: Rounding Decimals**

Round the number to the underlined place value position: 321.987

A ☐ 321.0

B ☐ 321.9

C ☐ 321.99

D ☐ 322.0

QUESTION 6

 /1**Topic Resource: Ordering Decimals**

Drag the numbers to place them in order from least to greatest.

≡ 114.2 ≡ 114.02 ≡ 114.202 ≡ 114.002

QUESTION 7

 /1

Topic Resource: Fractions in Lowest Terms

Which of the following is the fraction, $\frac{12}{18}$ in lowest terms?

A $\frac{4}{3}$

B $\frac{4}{9}$

C $\frac{2}{3}$

D $\frac{1}{4}$

QUESTION 8

/1

Topic Resource: Fractions, Improper and Mixed

Which of the following is $3\frac{4}{5}$ written as an improper fraction?

A $\frac{32}{5}$

B $\frac{19}{5}$

C $\frac{12}{5}$

QUESTION 9

/1

Topic Resource: Fractions, Improper and Mixed

Which of the following is $\frac{31}{8}$ written as a mixed number?

A $4\frac{1}{8}$

B $3\frac{7}{8}$

C $4\frac{7}{8}$

D $3\frac{1}{8}$

QUESTION 10

/1

Topic Resource: Comparing and Ordering Fractions

Drag the numbers to place them in order from least to greatest.

$\equiv \frac{2}{3} \equiv \frac{4}{9} \equiv \frac{5}{6} \equiv \frac{7}{12}$

/2

QUESTION 11

Topic Resource: Dividing Decimals

When Damien divided $12.6 \div 0.003$ and his answer of **4.2** was marked wrong.

Part 1: What is the **correct answer**?

Part 2: **Explain** what Connor did wrong.

QUESTION 12

/1

Topic Resource: Writing Fractions as Decimals

Which of the following is the decimal equivalent of $\frac{5}{8}$?

A ☐ 0.625

B ☐ 0.64

C ☐ 0.58

D ☐ 1.6

QUESTION 13

/1

Topic Resource: Writing Decimals as Fractions

Which of the following is the decimal 0.45 written as a fraction in lowest terms?

A ☐ $\frac{4}{5}$

B ☐ $\frac{3}{20}$

C ☐ $\frac{9}{20}$

D ☐ $\frac{2}{5}$

QUESTION 14

/2

Topic Resource: Order of Operations

Stephanie and Pete each simplified the expression, $30(6 - 4)$ Unfortunately, they did not get the same result.

Stephanie was convinced the answer was 176.

Pete was certain the answer was 60.

Simplify the expression $30(6 - 4)$ on your own and determine who is correct.

Part 1: Type the name of the person with the correct answer.

Part 2: Explain your answer. How do you now that person had the correct answer? Be specific.

QUESTION 15

/2**Topic Resource: Order of Operations**

Heather and Tom each simplified the expression, $81 \div 27 \times 6 - 2$ Unfortunately, they did not get the same result.

Heather was convinced the answer was 16.

Tom was certain the answer was 12.

Simplify the expression $81 \div 27 \times 6 - 2$ on your own and determine who is correct.

Part 1: Type the name of the person with the correct answer.

Part 2: Explain your answer. How do you now that person had the correct answer? Be specific.

QUESTION 16

/1

Topic Resource: Order of Operations

Simplify the expression: $\frac{5 + \sqrt{(-5)^2 - 4(1)(6)}}{2}$

A 5.5

B 3

C 6

D -2

QUESTION 17

/4

Topic Resource: Integer Arithmetic

Match each expression with the correct answer.

A

5 − 8

B

− 5 − 8

C

− 5 + 8

D

5 − (− 8)

1

− 13

2

13

3

− 3

4

3

QUESTION 18

/4

Topic Resource: Integer Arithmetic

Match each expression with the correct answer.

A

(6)(−3)

B

(−6)(−3)

C

−6−(−3)

D

−18÷−6

QUESTION 19

/2

Topic Resource: Properties of Addition

The equation $7 + x = x + 7$, illustrates the

1

.

The equation $(x + 4) + 6 = x + (4 + 6)$, illustrates the

2

.

Choose one option for each blank section

1

Commutative Property of Addition

2

Commutative Property of Addition

1

Associative Property of Addition

2

Associative Property of Addition

QUESTION 20

/2

Topic Resource: Solving Equations

Mary and Jason each solved the equation, $3x + 8 = 29$ Unfortunately, they did not get the same result.

Mary was convinced that $x = 18$.

Jason was certain that $x = 7$.

Solve the equation $3x + 8 = 29$ on your own and determine who is correct.

Part 1: Type the name of the person with the correct answer.

Part 2: Explain your answer. How do you now that person had the correct answer? Be specific.

QUESTION 21

/2**Topic Resource: Solving Equations**

Millie and Dan each solved the equation, $3x + 2x + 50 = 90$ Unfortunately, they did not get the same result.

Millie was convinced that $x = 6.7$.

Dan was certain that $x = 8$.

Solve the equation $3x + 2x + 50 = 90$ on your own and determine who is correct.

Part 1: Type the name of the person with the correct answer.

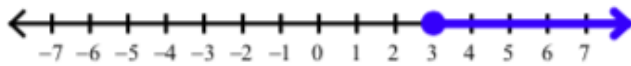
Part 2: Explain your answer. How do you now that person had the correct answer? Be specific.

QUESTION 22

/1

Topic Resource: Graph Inequalities on a Number Line

Which of the following describes the graph on the number line?



A ☐ $x < 3$

B ☐ $x > 3$

C ☐ $x \geq 3$

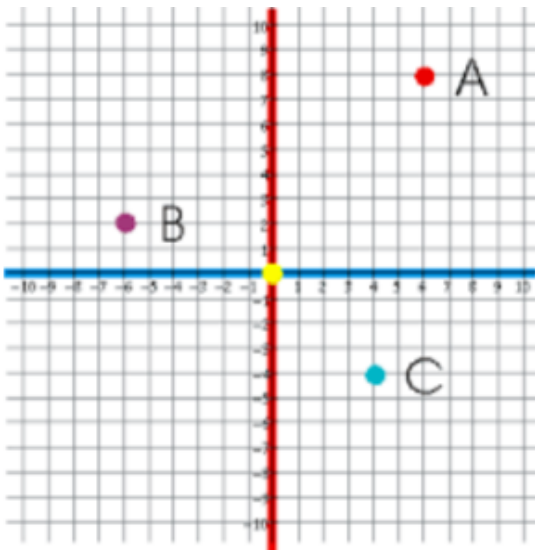
D ☐ $x \leq 3$

QUESTION 23

/1

Topic Resource: Graphing on the Coordinate Plane

Which of the following are the coordinates of Point B?



A ☐ $(6, 2)$

B ☐ $(2, -6)$

C ☐ $(-6, -2)$

D ☐ $(-6, 2)$

QUESTION 24

/2

Topic Resource: Graphing on the Coordinate Plane

Drag the correct label to the correct location.

1 y-axis

2 x-axis

QUESTION 25

 /1
Topic Resource: Percent

Which of the following is 16% of 380?

- | | |
|---|---|
| A <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> 60.8 | B <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> 6.08 |
| C <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> 6080 | D <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> 608 |

QUESTION 26

 /1
Topic Resource: Percent

A lamp is on sale for 25% off.

What is the sale price of the lamp, if the original price is \$108?

- | | |
|---|--|
| A <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> \$ 133 | B <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> \$ 81 |
| C <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> \$ 83 | D <input style="width: 40px; height: 20px; margin-right: 10px;" type="text"/> \$ 27 |

QUESTION 27

 /1**Topic Resource: Adding Fractions****Simplify the expression** $\frac{5}{12} + \frac{7}{8}$

A $\frac{31}{24}$

B $\frac{12}{20}$

C $\frac{3}{5}$

D $\frac{31}{40}$

QUESTION 28

 /1**Topic Resource: Multiplying Fractions****Simplify the expression,** $\left(2\frac{2}{5}\right) \cdot \left(1\frac{3}{7}\right)$.

A $2\frac{6}{35}$

B $3\frac{3}{7}$

C $3\frac{6}{35}$

D $2\frac{3}{7}$

QUESTION 29

 /1**Topic Resource: Dividing Fractions****Simplify the expression,** $3\frac{1}{4} \div 2\frac{1}{3}$.

A $2\frac{11}{28}$

B $2\frac{3}{4}$

C $1\frac{3}{4}$

D $1\frac{11}{28}$

QUESTION 30

 /1

Topic Resource: Adding Decimals

When Gertrude added $75.12 + 21.5$ her answer of 77.27 Is Gertrude correct?

A ☐ Yes

B ☐ No, the answer is 75.62

C ☐ No, the answer is 96.62

D ☐ No, the answer is 96.27

QUESTION 31

 /1**Topic Resource: Solving Equations**

I solved the following equation using the steps shown, but my answer did not check.

$$5x - 8 = 3x + 15 \quad (1)$$

$$2x - 8 = 15 \quad (2)$$

$$2x = 7 \quad (3)$$

$$x = 3.5 \quad (4)$$

Find the step where the mistake was made.

A ☐ 1

B ☐ 2

C ☐ 3

D ☐ 4