

## Math 6 - Unit 3: Expressions

### Unit 3 Interim Assessment Study Guide

Name: \_\_\_\_\_

Class Period: 1 2 3 4 Date: \_\_\_\_\_

- 1) Audra is 9 years younger than Fred. Her age can be represented by the expression  $f - 9$ , where  $f$  represents Fred's age.

If Fred is 57 years old, how old is Audra?

Answer: \_\_\_\_\_

- 2) Kimberly uses the expression  $10(3p - 1)$  to determine how much profit she will make after selling any given number of paintings ( $p$ ).

If  $p = 35$ , how much profit will Kimberly make?

Answer: \_\_\_\_\_

- 3) The expression for the perimeter of a rectangle is  $2L + 2W$  where  $L$  is the length and  $W$  is the width. A rectangular shaped pool has a length of **57** feet and a width of **21** feet.

What is the perimeter of the pool?

Answer: \_\_\_\_\_

- 4) What is the value of  $x^2 + 8$  if  $x = 13$ ?

Answer: \_\_\_\_\_

5) Evaluate the expression  $8x^2$  if  $x = 7$ .

Answer: \_\_\_\_\_

6) Which expression represents 18 less than twice  $k$ ?

- A)  $2k - 18$
- B)  $18 - 2k$
- C)  $2(k - 18)$
- D)  $2(18 - k)$

Answer: \_\_\_\_\_

7) Mr. Goletz started the school year with 33 students in his class. If  $y$  students moved out of his class, which expression represents the number of students left in the class?

- A)  $y + 33$
- B)  $y - 33$
- C)  $33 - y$
- D)  $33 \div y$

Answer: \_\_\_\_\_

8) Marcus has 57 baseball cards to divide between his teammates. Let  $c$  represent the number of teammates he has.

Which expression represents the number of baseball cards each of Marcus' teammates will receive?

- A)  $\frac{57}{c}$
- B)  $\frac{c}{57}$
- C)  $57c$
- D)  $57 - c$

Answer: \_\_\_\_\_

9) Choose the expression that represents "twice the sum of  $z$  and 14."

- A)  $2z + 14$
- B)  $2(z + 14)$
- C)  $2 + 14z$
- D)  $14(2 + z)$

Answer: \_\_\_\_\_

10) Which algebraic expression represents "the sum of a number and 15, divided by 12"?

- A)  $x + \frac{15}{12}$
- B)  $\frac{x+15}{12}$
- C)  $\frac{x}{12} + 15$
- D)  $12(x + 15)$

Answer: \_\_\_\_\_

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#### ANSWER KEY

Name: \_\_\_\_\_

Class Period: 1 2 3 4 Date: \_\_\_\_\_

- 1) Audra is 9 years younger than Fred. Her age can be represented by the expression  $f - 9$ , where  $f$  represents Fred's age.

If Fred is 57 years old, how old is Audra?

Answer: **48**

- 2) Kimberly uses the expression  $10(3p - 1)$  to determine how much profit she will make after selling any given number of paintings ( $p$ ).

If  $p = 35$ , how much profit will Kimberly make?

Answer: **1040**

- 3) The expression for the perimeter of a rectangle is  $2L + 2W$  where  $L$  is the length and  $W$  is the width. A rectangular shaped pool has a length of **57** feet and a width of **21** feet.

What is the perimeter of the pool?

Answer: **156 ft**

- 4) What is the value of  $x^2 + 8$  if  $x = 13$ ?

Answer: **177**

5) Evaluate the expression  $8x^2$  if  $x = 7$ .

Answer: **392**

6) Which expression represents 18 less than twice  $k$ ?

- A)  $2k - 18$
- B)  $18 - 2k$
- C)  $2(k - 18)$
- D)  $2(18 - k)$

Answer: **a**

7) Mr. Goletz started the school year with 33 students in his class. If  $y$  students moved out of his class, which expression represents the number of students left in the class?

- A)  $y + 33$
- B)  $y - 33$
- C)  $33 - y$
- D)  $33 \div y$

Answer: **b**

8) Marcus has 57 baseball cards to divide between his teammates. Let  $c$  represent the number of teammates he has.

Which expression represents the number of baseball cards each of Marcus' teammates will receive?

- A)  $\frac{57}{c}$
- B)  $\frac{c}{57}$
- C)  $57c$
- D)  $57 - c$

Answer: **a**

9) Choose the expression that represents "twice the sum of  $z$  and 14."

- A)  $2z + 14$
- B)  $2(z + 14)$
- C)  $2 + 14z$
- D)  $14(2 + z)$

Answer: **b**

10) Which algebraic expression represents "the sum of a number and 15, divided by 12"?

- A)  $x + \frac{15}{12}$
- B)  $\frac{x+15}{12}$
- C)  $\frac{x}{12} + 15$
- D)  $12(x + 15)$

Answer: **b**