

**Pre-Algebra**  
**Unit 1 Test Review**

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1. Which statement is not true?

A.  $-6 > -9$

B.  $-1 < 3$

C.  $-7 > -2$

D.  $|-15| = |15|$

**Perform the indicated operation.**

2.  $13 + 7$

3.  $-2 + -1$

4.  $5 - 9$

5.  $2 + -10$

6.  $-12 - (-5)$

7.  $-48 + 12$

8.  $-7 - 6$

9.  $-7 - (-6)$

10.  $15 - 35$

11.  $(12)(5)$

12.  $-22 \div -11$

13.  $(-8)(9)$

14.  $(-14)(-6)$

15.  $(-8)(-2)(-3)$

16.  $\frac{-120}{8}$

17.  $-12 \div -4 + (-2)^3$

18.  $-14 + 3(-2) - 1$

19.  $-\sqrt{81} + 15 \div -3$

**Evaluate each expression when  $a = -5$ ,  $b = -2$  and  $c = 7$ .**

20.  $abc$

21.  $a^2 - b - c$

22.  $4ac \div b$

For each statement below, write the property that is illustrated.

Commutative Property of Addition/Multiplication

Inverse of Property of Addition/Multiplication

Associative Property of Addition/Multiplication

Zero Product Property

Identity Property of Addition/Multiplication

Distributive Property

23.  $3(60 - 20) = 3(60) - 3(20)$  \_\_\_\_\_

24.  $8.5 + 0 = 8.5$  \_\_\_\_\_

25.  $4\left(\frac{1}{4}\right) = 1$  \_\_\_\_\_

26.  $4 + (6 + 2) = (4 + 6) + 2$  \_\_\_\_\_

27.  $(-2)(-3) = (-3)(-2)$  \_\_\_\_\_

28.  $(-9 + 15)(0) = 0$  \_\_\_\_\_

29.  $5 \cdot 1 = 5$  \_\_\_\_\_

30.  $-10 + 10 = 0$  \_\_\_\_\_

31.  $-11 + 7 = 7 + -11$  \_\_\_\_\_

32.  $8 \cdot (1 \cdot 6) = (8 \cdot 1) \cdot 6$  \_\_\_\_\_

Using the sets of numbers listed below, identify the most specific set to which each number belongs.

33.  $-6$  \_\_\_\_\_

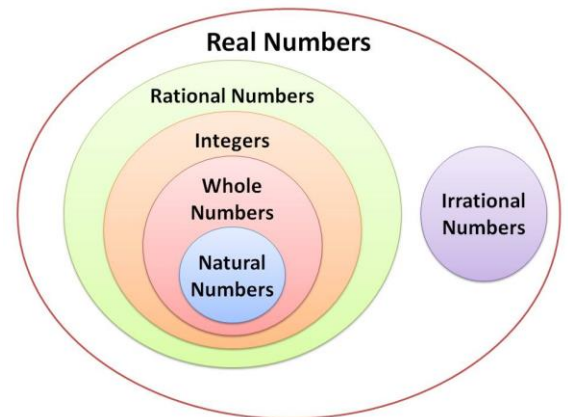
34.  $\sqrt{12}$  \_\_\_\_\_

35.  $0$  \_\_\_\_\_

36.  $5$  \_\_\_\_\_

37.  $14.\bar{9}$  \_\_\_\_\_

38.  $5\frac{2}{7}$  \_\_\_\_\_



39. If  $a < 0$  and  $b < 0$ , what can we conclude about the sign of  $a + b$ ? Explain.

40. A dolphin swims 8 feet below sea level. The dolphin returns to the surface and jumps out of the water to reach a height of 6 feet. What was the total distance between the dolphin's lowest elevation and highest elevation? *Write and evaluate an integer expression to represent the situation.*

41. In which of these situations would the answer to the question be 0? **Circle all that apply.**

- A. A shark is swimming 15 feet below the water's surface. It swims up and jumps out of the water to a height of 15 feet. What is the vertical distance covered by the shark?
  
- B. A trail begins at an elevation of -7 feet. The trail ends at an elevation of 7 feet. By how many feet does the elevation of the trail change from beginning to end?
  
- C. Nelly deposited \$300 into her bank account on Tuesday. The following day, she withdrew \$300 from the account. If no other transactions took place during that time, by how much did her account balance change?
  
- D. A football team gains 20 yards during their first play, loses 7 yards on the second play and then loses 13 more yards on the third play. How many yards were gained/lost overall?
  
- E. The high temperature on Thursday was  $5^{\circ}$  Celsius. The low temperature that same day was  $-5^{\circ}$  Celsius. What is the difference between the high and low temperature?