

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

Algebra 1CP Unit 1 practice test Show your work where needed and write your answer in the answer box

Evaluate using the order of operations.

1)  $3[8^2 + (18 \div 3)]$

2)  $\frac{16 + \sqrt{(-16)^2 - 4(3)(5)}}{2(5)}$

Solve the following one-step equations.

3)  $47 - (-h) = 49$

4)  $-4r = -36$

5)  $-\frac{d}{9} = -12$

6)  $\frac{4}{7}x = 12$

Solve the following two-step equations.

7)  $7x + 5 = 19$

8)  $-4x - 3 = -9$

9)  $\frac{a+4}{3} = -2$

10)  $\frac{m}{6} - 3 = -5$

Solve the following equations with the variable on both sides.

11)  $7 - m = 9m + 47$

12)  $3(a - 4) + 2 = 7(a + 9) - 8a - 17$

1) _____
2) _____
3) _____
4) _____
5) _____
6) _____
7) _____
8) _____
9) _____
10) _____
11) _____
12) _____

$$13) \frac{4}{7}x - 2 = 8 + \frac{3}{7}x$$

$$14) \frac{x-9}{3} = \frac{x+13}{4}$$

Use the commutative and associative property to rearrange these numbers and evaluate using mental math.

$$15) 24 + 12 + 38 + 16$$

$$16) 29 + 22 + 31 + 3$$

$$17) 5 \cdot 13 \cdot 2$$

$$18) 25 \cdot 22 \cdot 4$$

Indicate to which system(s) these numbers belong.

$$19) 16$$

$$22) -12$$

$$25) -3i$$

$$20) -\sqrt{3}$$

$$23) 8 \text{ and } \pi$$

$$26) \frac{2}{3}$$

$$21) 0$$

$$24) 20 - 14i$$

Indicate whether the following systems have closure under the given operation. Give an example that proves your answer.

27) Natural numbers; division

28) Integers numbers; subtraction

29) Rational numbers; addition

30) Irrational; multiplication

Extra credit:

Explain when the commutative property can be used for subtraction.

13) \_\_\_\_\_

14) \_\_\_\_\_

15) \_\_\_\_\_

16) \_\_\_\_\_

17) \_\_\_\_\_

18) \_\_\_\_\_

19) \_\_\_\_\_

20) \_\_\_\_\_

21) \_\_\_\_\_

22) \_\_\_\_\_

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24) \_\_\_\_\_

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EC) \_\_\_\_\_

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