

1. $4 + 9 = 9 + 4$ is an example of which property?

- (1) identity property of addition
- (2) associative property of addition
- (3) commutative property of addition
- (4) distributive property

2. Which is an example of the associative property of multiplication?

- (1) $6 + 7 = 7 + 6$
- (2) $6(7 + 3) = 6(7) + 6(3)$
- (3) $2 \cdot (8 \cdot 3) = (2 \cdot 8) \cdot 3$
- (4) $(4 \cdot 9) \cdot 3 = 3 \cdot (4 \cdot 9)$ ← NOT Associative!

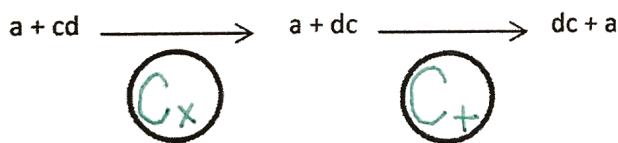
3. What property is illustrated by the statement $-5 + 5 = 0$?

- (1) identity property of addition
- (2) associative property of addition
- (3) commutative property of addition
- (4) inverse property of addition

4. Which of the following equations illustrates an identity property?

- (1) $5(2 + 3) = 10 + 15$
- (2) $11 + 0 = 11$
- (3) $22 + -22 = 0$
- (4) $\frac{1}{6} \cdot 6 = 1$

5. The following flow diagram shows that the expression $a + cd$ is equivalent to the expression $dc + a$.



Fill in each circle with the appropriate symbol below that demonstrates the property used.

C_+ (for the "Commutative Property of Addition")
 C_x (for the "Commutative Property of Multiplication")

6. Evaluate each of the following:

a. $\sqrt{196}$
14

b. $-\sqrt{64}$
-8

c. $\pm\sqrt{100}$
10 and -10

d. $\sqrt{25} \cdot \sqrt{81}$
 $5 \cdot 9$
45

e. $\sqrt{36}^2$
 6^2
36

f. $\sqrt{144} - \sqrt{16}$
 $12 - 4$
8

g. $\sqrt{\frac{121}{25}}$
 $\frac{11}{5}$
 or
 $2\frac{1}{5}$

h. $\sqrt{8}$
 $\sqrt{4} \sqrt{2}$
 $2 \sqrt{2}$
 $\sqrt{8} \approx 3$