Properties Worksheet 1 (identity, inverse, commutative, associative, distributive)

In numbers 1-9, select the property that is being illustrated.

1) -3 + 6 = 6 + -3
A) Associative Property of Addition
B) Commutative Property of Addition
C) Distributive Property
D) Property of Additive Inverse

2) 3 + (5 + 7) = 3 + (7 + 5)
A) Distributive Property
B) Property of Additive Inverse
C) Associative Property of Addition
D) Commutative Property of Addition

3) 7 • 3 = 3 • 7
A) Property of Multiplicative Inverse
B) Associative Property of Multiplication
C) Commutative Property of Multiplication
D) Distributive Property

4) (7 • 5) • 2 = 7 • (5 • 2)
A) Identity Property for Multiplication
B) Associative Property of Multiplication
C) Property of Multiplicative Inverse
D) Commutative Property of Multiplication

5) 2(7 + 3) = 2(7) + 2(3)
A) Commutative Property of Addition
B) Associative Property of Multiplication
C) Multiplication Property of Equality
D) Distributive Property

6) -2(x + 5) = -2x - 10
A) Multiplication Property of Equality
B) Associative Property of Multiplication
C) Distributive Property
D) Identity Property for Multiplication

7) -3(x - 3) = -3x + 9
A) Identity Property for Multiplication
B) Commutative Property of Multiplication
C) Multiplication Property of Equality
D) Distributive Property

8) x + 0 = x
A) Commutative Property of Addition
B) Associative Property of Addition
C) Property of Additive Inverse
D) Identity Property of Addition

9) a = a • 1

A) Associative Property of Multiplication
B) Identity Property of Multiplication
C) Property of Multiplicative Inverse
D) Commutative Property of Multiplication

In numbers 10-16, choose the answer the best answers the question.

10) Which of the following is an illustration of the associative property?
A) a(b + c) = ab + ac
B) ab + 0 = ab
C) a + (b + c) = (a + b) + c
D) a + b = b + a

11) Which sentence is an example of the distributive property?
A) a(b + c) = ab + ac
B) a • 1 = a
C) ab = ba
D) a(bc) = (ab)c

12) What number is the additive identity element?
A) 1   B) 0   C) -1   D) 2

13) Which statement best illustrates the additive identity property?
A) 6 + 2 = 2 + 6   B) 6 + 0 = 6
C) 6 + (-6) = 0   D) 6(2) = 2(6)

14) What number is the multiplicative identity element?
A) ½   B) 0   C) -1   D) 1

15) Which statement best illustrates the inverse property of addition?
A) 3 + 3= 6
B) -3 + 3= 0
C) 3 + 0 = 3
D) 3(1)= 3

16) Which statement best illustrates the inverse property of multiplication?
A) 2 • (-½) = -1
B) 2 • 1 = 2
C) 2 • 0 = 0
D) 2 • ½ = 1