

NUMBERS OPERATIONS AND PROPERTIES: Properties of Reals

www.jmap.org

NAME: _____

1. 060424a, P.I. A.N.1

Which expression is an example of the associative property?

[A] $(x + y) + z = x + (y + z)$

[B] $x(y + z) = xy + xz$

[C] $x \cdot 1 = x$

[D] $x + y + z = z + y + x$

2. 010428a, P.I. A.N.1

Which equation illustrates the associative property of addition?

[A] $(3 + x) + y = 3 + (x + y)$

[B] $3(x + 2) = 3x + 6$

[C] $x + y = y + x$

[D] $3 + x = 0$

3. 080725a, P.I. A.N.1

Which equation illustrates the associative property?

[A] $(a + b) + c = a + (b + c)$

[B] $a(b + c) = (ab) + (ac)$

[C] $a + b = b + a$

[D] $a(1) = a$

4. 080413a, P.I. A.N.1

Which equation illustrates the distributive property of multiplication over addition?

[A] $6(3a + 4b) = (3a + 4b)6$

[B] $6(3a + 4b) = 18a + 4b$

[C] $6(3a + 4b) = 6(4b + 3a)$

[D] $6(3a + 4b) = 18a + 24b$

5. 060503a, P.I. A.N.1

Which equation illustrates the distributive property?

[A] $5(a + b) = 5a + 5b$

[B] $a + b = b + a$

[C] $a + 0 = a$

[D] $a + (b + c) = (a + b) + c$

6. 060108a, P.I. A.N.1

Which equation illustrates the distributive property for real numbers?

[A] $(1.3 \times 0.07) \times 0.63 = 1.3 \times (0.07 \times 0.63)$

[B] $-3(5 + 7) = (-3)(5) + (-3)(7)$

[C] $\frac{1}{3} + \frac{1}{2} = \frac{1}{2} + \frac{1}{3}$

[D] $\sqrt{3} + 0 = \sqrt{3}$

7. 089907a, P.I. A.N.1

Which equation is an illustration of the additive identity property?

[A] $x \cdot \frac{1}{x} = 1$

[B] $x - x = 0$

[C] $x \cdot 1 = x$

[D] $x + 0 = x$

8. 060624a, P.I. A.N.1

Which statement best illustrates the additive identity property?

[A] $6 + 2 = 2 + 6$

[B] $6(2) = 2(6)$

[C] $6 + (-6) = 0$

[D] $6 + 0 = 6$

9. 010314a, P.I. A.N.1

Which equation illustrates the multiplicative identity element?

[A] $x \cdot 1 = x$

[B] $x - x = 0$

[C] $x + 0 = x$

[D] $x \cdot \frac{1}{x} = 1$

10. 060926ia, P.I. A.N.1

What is the additive inverse of the expression $a - b$?

[A] $a - b$

[B] $a + b$

[C] $-a + b$

[D] $-a - b$

11. 010207a, P.I. A.N.1

Which expression must be added to $3x - 7$ to equal 0?

[A] $-3x + 7$

[B] $-3x - 7$

[C] $3x + 7$

[D] 0

12. 060315a, P.I. A.N.1

What is the additive inverse of $\frac{2}{3}$?

- [A] $\frac{1}{3}$ [B] $-\frac{2}{3}$ [C] $-\frac{3}{2}$ [D] $\frac{3}{2}$

13. 010821a, P.I. A.N.1

The additive inverse of $\frac{1}{a}$ is

- [A] a [B] 0 [C] $-\frac{1}{a}$ [D] $-a$

14. 060011a, P.I. A.N.1

If $a \neq 0$ and the sum of x and $\frac{1}{a}$ is 0, then

- [A] $x = -a$ [B] $x = -\frac{1}{a}$
[C] $x = 1 - a$ [D] $x = a$

15. 060815a, P.I. A.N.1

The reciprocal of 5 is

- [A] $-\frac{1}{5}$ [B] 1 [C] $\frac{1}{5}$ [D] -5

16. 010516a, P.I. A.N.1

What is the multiplicative inverse of $\frac{3}{4}$?

- [A] $\frac{4}{3}$ [B] $-\frac{3}{4}$ [C] $-\frac{4}{3}$ [D] -1

17. 010730a, P.I. A.N.1

The multiplicative inverse of $-\frac{1}{3}$ is

- [A] $-\frac{1}{3}$ [B] $\frac{1}{3}$ [C] -3 [D] 3

18. 010630a, P.I. A.N.1

Which equation illustrates the multiplicative inverse property?

- [A] $x \cdot \frac{1}{x} = 1$ [B] $1 \cdot x = x$
[C] $-1 \cdot x = -x$ [D] $1 \cdot 0 = 0$

19. 080115a

If $a + b$ is less than $c + d$, and $d + e$ is less than $a + b$, then e is

- [A] greater than d [B] less than d
[C] equal to c [D] less than c

20. 080810a

The sum of two negative numbers always has to be

- [A] negative [B] zero
[C] positive [D] an integer

21. 060207b

Which statement is true for all real number values of x ?

- [A] $|x - 1| > 0$ [B] $\sqrt{x^2} = |x|$
[C] $|x - 1| > (x - 1)$ [D] $\sqrt{x^2} = x$

NUMBERS OPERATIONS AND PROPERTIES: Properties of Reals

www.jmap.org

[1] A _____

[2] A _____

[3] A _____

[4] D _____

[5] A _____

[6] B _____

[7] D _____

[8] D _____

[9] A _____

[10] C _____

[11] A _____

[12] B _____

[13] C _____

[14] B _____

[15] C _____

[16] A _____

[17] C _____

[18] A _____

[19] D _____

[20] A _____

[21] B _____