

Properties

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Which Property?



1.

Which Property?

$$(2 + 1) + 4 = 2 + (1 + 4)$$

**Associative Property
of Addition**

2.

Which Property?

$$3 + 7 = 7 + 3$$

**Commutative
Property of Addition**

3.

Which Property?

$$8 + 0 = 8$$

**Identity Property of
Addition**

4.

Which Property?

$$\text{(even)} \cdot \text{(even)} = \text{(even)}$$

Closure Property

5.

Which Property?

$$6 \cdot 4 = 4 \cdot 6$$

**Commutative Property
of Multiplication**

6.

Which Property?

$$17 + (-17) = 0$$

**Inverse Property of
Addition**

7.

Which Property?

$$2(5) = 5(2)$$

**Commutative Property
of Multiplication**

8.

Which Property?

even + even = even

Closure Property

9.

Which Property?

$$3(2 + 5) = 3 \cdot 2 + 3 \cdot 5$$

Distributive Property

10.

Which Property?

$$6(7 \cdot 8) = (6 \cdot 7)8$$

**Associative Property of
Multiplication**

11.

Which Property?

$$5 \cdot 1 = 5$$

**Identity Property of
Multiplication**

12.

Which Property?

$$\text{(odd)} \cdot \text{(odd)} = \text{(odd)}$$

Closure Property

A cartoon illustration of a young girl with long, dark red hair, large blue eyes, and a purple sleeveless top. She is sitting on a large, white, fluffy cloud, resting her chin on her hand in a thoughtful or bored expression. The background is a light blue sky with yellow borders at the top and bottom.

Properties Using Negatives

13.

Which Property?

$$(6 - 3)4 = 6 \cdot 4 - 3 \cdot 4$$

Distributive Property

14.

Which Property?

$$1(-9) = -9$$

**Identity Property of
Multiplication**

15.

Which Property?

$$3 + (-3) = 0$$

**Inverse Property of
Addition**

16.

Which Property?

$$1 + [-9 + 3]$$

$$= [1 + (-9)] + 3$$

**Associative Property of
Addition**

17.

Which Property?

$$-3(6) = 6(-3)$$

**Commutative Property
of Multiplication**

18.

Which Property?

$$-8 + 0 = -8$$

**Identity Property of
Addition**

19.

Which Property?

$$3 \cdot 7 - 3 \cdot 4 = 3(7 - 4)$$

Distributive Property

20.

Which Property?

$$6 + [(3 + (-2))]$$

$$= (6 + 3) + (-2)$$

**Associative Property
of Addition**

21.

Which Property?

$$7 + (-5) = -5 + 7$$

**Commutative
Property of Addition**

22.

Which Property?

$$(5 + 4)9 = 45 + 36$$

Distributive Property

23.

Which Property?

$$-3(5 \cdot 4) = (-3 \cdot 5)4$$


**Associative Property of
Multiplication**

24.

Which Property?

$$-8(4) = 4(-8)$$

**Commutative Property
of Multiplication**

A cartoon illustration of a young girl with long, dark red hair and large blue eyes. She is wearing a purple sleeveless top and is sitting on a large, fluffy white cloud. She has her right hand resting on her chin, looking thoughtfully towards the right.

Properties Using Fractions

25.

Which Property?

$$5^{1/7} + 0 = 5^{1/7}$$

**Identity Property of
Addition**

26.

Which Property?

$$\frac{3}{4} - \frac{6}{7} = -\frac{6}{7} + \frac{3}{4}$$

**Commutative Property
of Addition**

27.

Which Property?

$$1^{2/5} \cdot 1 = 1^{2/5}$$

**Identity Property of
Multiplication**

28.

Which Property?

(fraction)(fraction)

= fraction

Closure Property

29.

Which Property?

$$-8 \frac{2}{5} + 0 = -8 \frac{2}{5}$$

**Identity Property of
Addition**

30.

Which Property?

$$\left[\left(-\frac{2}{3} \right) (5) \right] 9 = -\frac{2}{3} [(5)(9)]$$

**Associative Property of
Multiplication**

A cartoon illustration of a young girl with long, dark red hair and large blue eyes. She is wearing a purple sleeveless top and is sitting on a large, white, fluffy cloud. She has her right hand resting on her chin, looking thoughtfully towards the right. The background is a solid light blue color.

Properties Using Variables

31.

Which Property?

$$6(3 - 2n) = 18 - 12n$$

Distributive Property

32.

Which Property?

$$2x + 3 = 3 + 2x$$

**Commutative Property
of Addition**

33.

Which Property?

$$ab = ba$$

**Commutative Property
of Multiplication**

34.

Which Property?

$$\mathbf{a + 0 = a}$$

**Identity Property of
Addition**

35.

Which Property?

$$\mathbf{a(bc) = (ab)c}$$

**Associative Property of
Multiplication**

36.

Which Property?

$$\mathbf{a \cdot 1 = a}$$

**Identity Property of
Multiplication**

37.

Which Property?

$$\mathbf{a + b = b + a}$$

**Commutative Property
of Addition**

38.

Which Property?

$$\mathbf{a(b + c) = ab + ac}$$

Distributive Property

39.

Which Property?

$$\mathbf{a + (b + c) = (a + b) + c}$$

**Associative Property of
Addition**

40.

Which Property?

$$\mathbf{a + (-a) = 0}$$

**Inverse Property of
Addition**



Enjoy your Algebra work!