

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Identifying Mathematical Properties

Name the property shown by each definition or equation.

1. Multiplying by one leaves a number unchanged. Name the property shown by this equation.

$$5 \times 1 = 5$$

2. Name the property shown by this equation.

$$6 + 0 = 6$$

3. Changing the order of two addends does not change their sum. Name the property shown by this equation.

$$6 + 12 = 12 + 6$$

4. Name the property shown by this equation.

$$3 \times (12 + 19) = 3 \times 12 + 3 \times 19$$

5. Adding zero leaves a number unchanged. Name the property shown by this equation.

$$0 + 6 = 6$$

6. Name the property shown by this equation.

$$5 \times 10 = 10 \times 5$$

7. Changing only the grouping of three addends does not change their sum. Name the property shown by this equation.

$$(6 + 11) + 19 = 6 + (11 + 19)$$

8. Name the property shown by this equation.

$$6 \neq 0 \Rightarrow 6 \times \left(\frac{1}{6}\right) = 1$$

9. A number plus its opposite equals zero. Name the property shown by this equation.

$$4 + (-4) = 0$$

10. Name the property shown by this equation.

$$(7 \times 13) \times 14 = 7 \times (13 \times 14)$$

Identifying Mathematical Properties

Answer key

Name the property shown by each definition or equation.

1. **Multiplying by one leaves a number unchanged. Name the property shown by this equation.**

$$5 \times 1 = 5$$

Multiplicative identity property. Multiplying by one leaves a number unchanged.

2. **Name the property shown by this equation.**

$$6 + 0 = 6$$

Additive identity property / Addition property of zero. Adding zero leaves a number unchanged.

3. **Changing the order of two addends does not change their sum. Name the property shown by this equation.**

$$6 + 12 = 12 + 6$$

Commutative property of addition. Changing the order of two addends does not change their sum.

4. **Name the property shown by this equation.**

$$3 \times (12 + 19) = 3 \times 12 + 3 \times 19$$

Distributive property. Multiplying a sum by a factor equals adding the products of that factor and each addend.

5. **Adding zero leaves a number unchanged. Name the property shown by this equation.**

$$0 + 6 = 6$$

Additive identity property / Addition property of zero. Adding zero leaves a number unchanged.

6. **Name the property shown by this equation.**

$$5 \times 10 = 10 \times 5$$

Commutative property of multiplication. Changing the order of two factors does not change their product.

7. **Changing only the grouping of three addends does not change their sum. Name the property shown by this equation.**

$$(6 + 11) + 19 = 6 + (11 + 19)$$

Associative property of addition. Changing only the grouping of three addends does not change their sum.

8. **Name the property shown by this equation.**

$$6 \neq 0 \Rightarrow 6 \times \left(\frac{1}{6}\right) = 1$$

Multiplicative inverse property. A nonzero number times its reciprocal equals one.

9. **A number plus its opposite equals zero. Name the property shown by this equation.**

$$4 + (-4) = 0$$

Additive inverse property. A number plus its opposite equals zero.

10. **Name the property shown by this equation.**

$$(7 \times 13) \times 14 = 7 \times (13 \times 14)$$

Associative property of multiplication. Changing only the grouping of three factors does not change their product.