

HW: IXL Assignment (on Google Classroom)

Smart Score 85 or higher

Warm up:

Evaluate.

$$1) -2 - (-9) = 7$$

$$2) -2 + (-1) = -3$$

$$3) -15 + 2 = -13$$

$$4) 1 - 14 = -13$$

$$5) -7 + 7 = 0$$

$$6) 3 + (-3) = 0$$

Properties of Numbers

Identity Property

Addition - The sum of any number n and zero is n .

$$n + 0 = n$$

$$5 + 0 = 5$$

Multiplication - The product of any number n and 1 is n .

$$n \times 1 = n$$

$$3 \times 1 = 3$$

Commutative Property

The order in which you add or multiply two numbers does not change the sum or product.

$$a + b = b + a$$

$$3 + 2 = 2 + 3$$

$$ab = ba$$

$$7 \cdot 5 = 5 \cdot 7$$

Associative Property

When adding or multiply^{ing} any three numbers, the grouping (or association) of the numbers does not change the sum or product.

$$a + (b + c) = (a + b) + c$$

$$6 + (1 + 4) = (6 + 1) + 4$$

$$a \times (b \times c) = (a \times b) \times c$$

$$7 \times (4 \times 2) = (7 \times 4) \times 2$$

Distributive Property

For all real numbers a , b , and c ...

$$a(b + c) = ab + ac$$

$$a(b - c) = ab - ac$$

$$2(8 + 3) = 2(8) + 2(3)$$

$$3(5a + 6) = 15a + 18$$

$$4 + 6 = 6 + 4$$

Commutative

$$9 + 0 = 9$$

identity

$$3(x + 5) = 3x + 15$$

distributive

$$(3 \times 2) \times 7 = 3 \times (2 \times 7)$$

associative

$$2 \times 12 = 12 \times 2$$

Commutative

$$6(4n - 10) = 24n - 60$$



distributive

$$5 + (2 + 9) = (5 + 2) + 9$$

associative

$$-6 \times 1 = -6$$

identity

$$-8 + 5 = 5 + (-8)$$

commutative

Identify the property being demonstrated.

1) $x \cdot 5 = 5x$ commutative

2) $6 + (2 + 1) = (6 + 2) + 1$ associative

3) $3 \cdot 1 = 3$ identity

4) $3(2x + 5) = 6x + 15$ distributive

5) $(4 \cdot 2) \cdot 9 = 4 \cdot (2 \cdot 9)$ associative

6) $5 \cdot 4 = 4 \cdot 5$ commutative

7) $(4 + x) + 0 = 4 + x$ identity

8) $(2 + n) + 5 = 5 + (n + 2)$ commutative

$$\frac{1}{2}(10+8) = 5+4=9$$

$$\frac{10+8}{2} = 5+4=9$$



