

INTEGER NUMBERS

Lea el texto y complete los espacios usando las siguientes opciones

Integer numbers - number line - Whole numbers - Natural numbers-

- _____ are counting numbers from one to infinity.
We use the letter $\mathbb{N}$ to refer to the set of all natural numbers.

$$\mathbb{N} = \{1, 2, 3, 4, \dots, 10, 11, \dots\}$$

- _____ are counting numbers from zero to infinity.

$$\{0, 1, 2, 3, 4, \dots, 10, 11, \dots\}$$

- _____ are positive numbers and negative numbers, but not fractions or decimals.

We use the letter $\mathbb{Z}$ to refer to the set of all integer numbers.

$$\mathbb{Z} = \{\dots, 5, 4, 3, 2, 1, 0, 1, 2, 3, 4, 5, \dots\}$$

- We use a _____ to show integer numbers:



Properties of Integers

Lee cuidadosamente los enunciados. Luego elige la propiedad correspondiente.
Finalmente une las descripciones con sus ejemplos

1) Changing the order of the addends does not change the sum.
This property does not apply to subtraction or division

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

$$\text{Example: } -6 \cdot (-2 + 3) = 12 - 18$$

2) Changing the **grouping** of the addends does not change the sum.

$$a \cdot 0 = 0$$

$$\text{Example: } (-7) \cdot 0 = 0$$

3) Multiplying a sum by a number is the same as multiplying each addend by that number and then adding the two products.

$$a + 0 = a$$

For addition: Adding 0 and any number does not change the value of the number.

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

$$\text{Example: } (-5 + 8) + 1 = -5 + (8 + 1)$$

For multiplication: Multiplying 1 and any number does not change the value of the number.

$$a + b = b + a$$

$$\text{Example: } 6 + 4 = 4 + 6$$

The sum of any integer and its additive inverse is 0
The inverse property for multiplication does not exist for the set of integers.
Fractions are not included in the set of integers.

$$a + (-a) = 0$$

$$\text{Example: } 9 + (-9) = 0$$

The product of 0 and any number is 0.

$$a \cdot 1 = a$$