

Series: Mathematics - from zero to engineer (1)

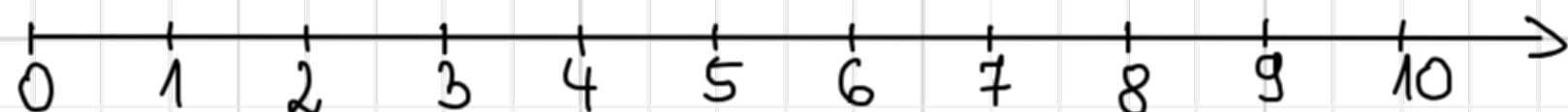
Natural numbers:

0, 1, 2, 3, 4, 5, 6, 7, 8, 9...

2 4 6 → six ones
two hundreds
four tens

$$200 + 40 + 6 = 246$$

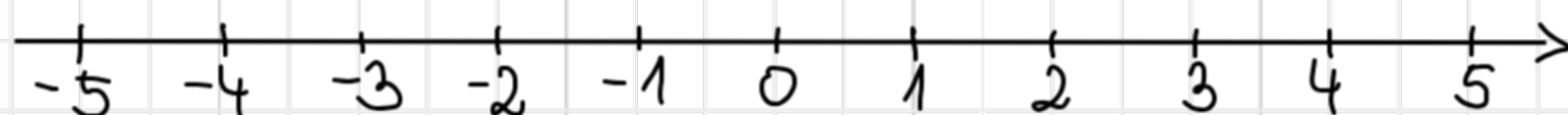
Number line



$$8 > 5$$

$$3 < 6$$

Integers - positive numbers, negative numbers, and zero.



$$-5 < 3$$

$$-2 > -4$$

$$-3 > -6$$

the numbers -10, 4, 0, -13 belong to the set of integers

$$2 > -4$$

$$-7 < 12$$

$$5 - -3 \text{ incorrect} \quad 7 \cdot -2 \text{ incorrect}$$

$$5 - (-3) \text{ correct} \quad 7 \cdot (-2) \text{ correct}$$

arithmetic operators

(symbols) : +, -, ·, :

addition → sum

subtraction → difference

$$8 + (-3) = 8 - 3 = 5$$

$$9 - (-6) = 9 + 6 = 15$$

$$(-4) + (-8) = (-4) - 8 = -12$$

$$(-14) - (-7) = (-14) + 7 = -7$$

multiplication → product

division → quotient

$$(-5) \cdot 3 = -15$$

$$12 : (-6) = -2$$

$$(-2) \cdot (-8) = 16$$

$$(-14) : (-7) = 2$$

Order of operations:

$$34 + 10 : (2 - 3) \cdot 5 = 34 + 10 : (-1) \cdot 5 = 34 - 10 \cdot 5 = 34 - 50 = -16$$

1 2 3 4