

# ALGEBRA





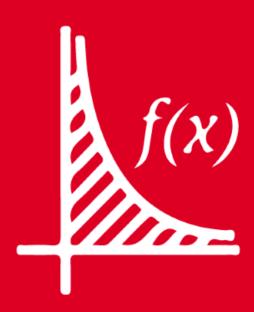
Práctica exploratoria SESIÓN I





# ALGEBRA

Números Enteros









### Efectúe en cada caso:

a) 
$$(-5) - (-8)$$

**b**) 
$$-12 - (+17)$$

$$(-5) - (-8) - 8 + 10$$

## **Resolución:** Operando en cada caso

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

**b**) 
$$-12 - (+17) = -12 - 17 = -29$$

c) 
$$(-5) - (-8) - 8 + 10$$
  
=  $-5 + 8$   $-8 + 10 = -5 + 10 = +5$ 

## RECUERDA



### Forma práctica

"Signos diferentes se RESTAN y se coloca el signo del mayor"

"Signos iguales se SUMAN y se coloca el signo común"

3; -29; 5



2

Reduce en cada caso:

$$A = 10 - 2(-3) + 5(0) - (-7)(-4)$$

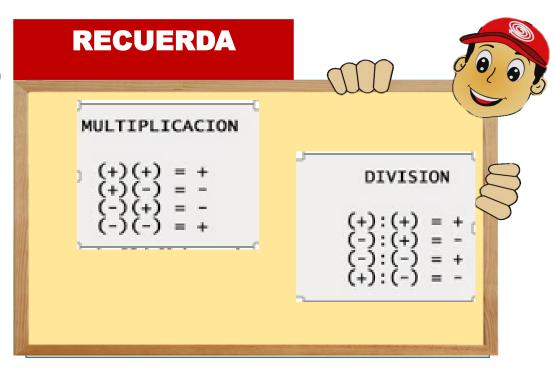
$$B = \frac{(-20)(15)}{(-15)(2)} - \frac{8}{16}$$

Resolución: Operando en cada caso

\* 
$$A = 10 - 2(-3) + 5(0) - (-7)(-4)$$

$$A = 10 + 6 + 0 + 28 = 16 - 28 = 12$$

\* 
$$B = \frac{(-20)(15)}{(-13)(2)} - \frac{1}{16} = +10 - \frac{1}{2} = \frac{19}{2}$$



∴ -12;19/2



3

Obtenga el valor de:

$$Q = \frac{(-4)(-10) - (-2)(-3)}{(-5)(-3) + (-2)(-1)}$$

### Resolución:

Multiplicando por partes

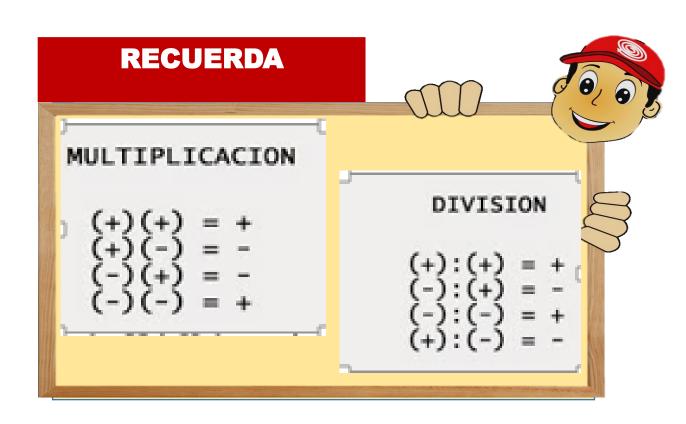
$$(-4)(-10) = 40$$

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

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

$$(-2)(-1) = 2$$

$$Q=\frac{40-6}{15+2}=\frac{34}{17}=2$$



#### HELICO | PRACTICE





Complete los recuadro con los números que faltan para que se verifique la igualdad:

a) 
$$(-1)(+7) + \square = -5$$

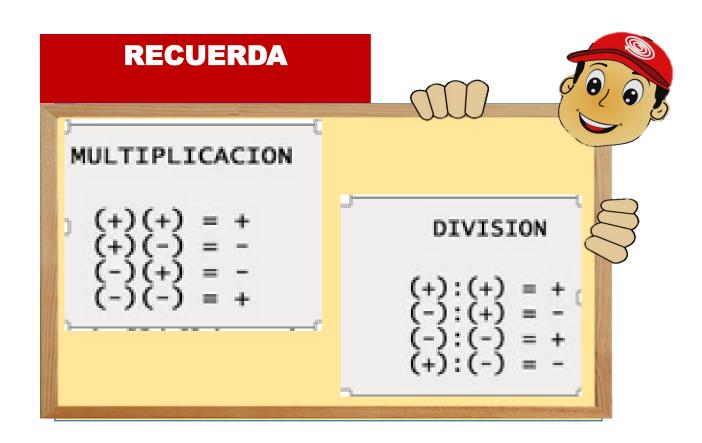
b) 
$$-10 + (-1)(+3) = \boxed{-18}$$

### Resolución:

Operando cada caso:

a) 
$$(-1)(+7) + \boxed{ } = -5$$
  
 $-7 + \boxed{ } = -5$   
 $\boxed{2} = -5 + 7$ 

b) 
$$-10 + (-1)(+3) = \boxed{ } -18$$
  
 $-10 - 3 = \boxed{ } -18$   
 $-13 = \boxed{ } -18$   
 $-13 + 18 = \boxed{ } 5$ 





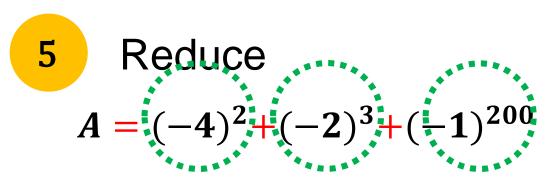
## ALGEBRA

Leyes de Exponentes



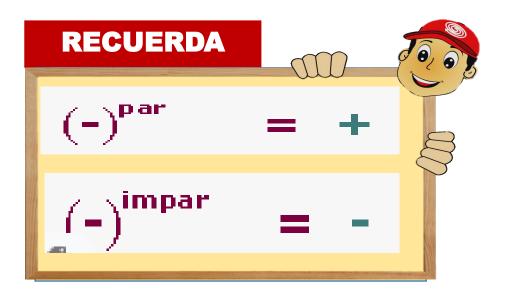






## Resolución:

$$A = + 16 + (-8) + (+1)$$
 $A = 16 - 8 + 1$ 
 $A = 0$ 



$$\therefore A = 9$$

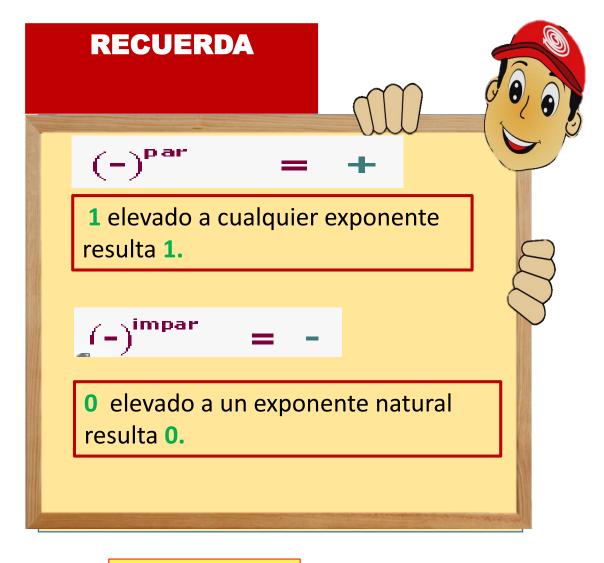
6 Reduce 
$$M = (-1)^{122} + (-1)^{2021} + 0^{200}$$

## M = + 1 + (-1) + (0)

$$M = + 1 - 1 + 0$$

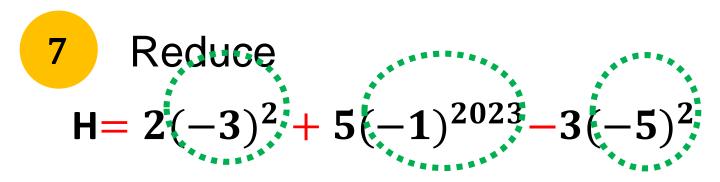
$$M = 0$$

Resolución:



$$\therefore M = 0$$





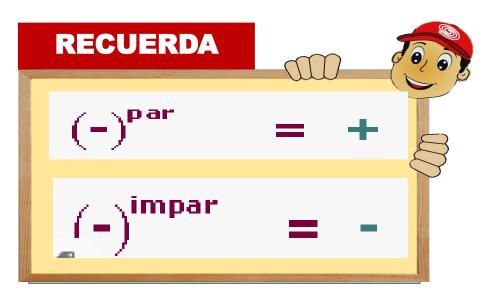
## Resolución:

$$H = 2(+9) + 5(-1) - 3(+25)$$

$$H = +18 - 5 - 75$$

$$H = +18 - 80$$

$$H = -62$$



$$\therefore H = -62$$

#### HELICO | PRACTICE

8

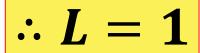
Determine el valor de

$$L = \sqrt{\left(\frac{1}{3}\right)^{-1} + \left(\frac{1}{5}\right)^{-2} - \left(\frac{1}{3}\right)^{-3}}$$

## Resolución:

$$L = \sqrt{3 + 25 - 27}$$

$$L = \sqrt{1} = 1$$



#### **RECUERDA**



Exponente negativo: "Invertir"

$$*\left(\frac{1}{3}\right)^{-1} = 3^1 = 3$$

$$* \left(\frac{1}{5}\right)^{-2} = (5)^{2} = 25$$

$$*\left(\frac{1}{3}\right)^{-3} = (3)^{3} = 27$$