

# ALGEBRA

1st

RETROALIMENTACIÓN  
TOMO I



 **SACO OLIVEROS**

1. Efectúe en cada caso

**RESOLUCIÓN**

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

$$b. (-20) - (-30) = -20 + 30 = +10$$

$$c. (-2021) - (-2021) = -2021 + 2021 = 0$$

$$d. (+11) + (-18) = +11 - 18 = -7$$

## RESOLUCIÓN

2. Efectúe  $M+N$  si :

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

$$N = -48 \div 8$$

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

$$M = -3$$

$$N = -48 \div 8$$

$$N = -6$$

Piden :

$$M + N = -3 - 6 = -9$$

$$\therefore M + N = -9$$

**3.** Halle el valor de

$$Q = (13)(-2) + 7(9) - (-5)(+6)$$

Sabiendo que representa la edad de Christian hace 5 años. ¿Cuál será su edad dentro de 2 años?

**RESOLUCIÓN**

$$Q = (13)(-2) + 7(9) - (-5)(+6)$$

$$Q = -26 + 63 + 30$$

$$Q = -26 + 93$$

$$Q = +67$$

$$\text{Edad actual} = 67 + 5$$

$$\text{Edad actual} = 72$$

∴ Christian tendrá 74 años

4. Sabiendo que :

$$A = (-8)(+2)(-4)$$

$$B = (-16) \div (-2)$$

$$C = (-4)^2 - (-4)^3$$

Calcule

$$B \sqrt[5]{C - (A + B)}$$

### RESOLUCIÓN

$$A = (-8)(+2)(-4)$$

$$A = +64$$

$$B = (-16) \div (-2)$$

$$B = +8$$

$$C = (-4)^2 - (-4)^3$$

$$C = +16 - (-64)$$

$$C = 16 + 64$$

$$C = 80$$

Piden :

$$8 - 5 \sqrt{80 - (64 + 8)}$$

$$\sqrt[3]{80 - 72}$$

$$\sqrt[3]{8}$$

$$\therefore 2$$

5. El valor de

$$P = \frac{3}{8} + \frac{2}{3} - \frac{1}{6}$$

es

### RESOLUCIÓN

$$\text{mcm}(8; 3; 6) = 24$$

$$24(P) = \cancel{24} \left( \frac{3}{\cancel{8}} \right) + \cancel{24} \left( \frac{2}{\cancel{3}} \right) - \cancel{24} \left( \frac{1}{\cancel{6}} \right)$$

$$24P = 3(3) + 8(2) - 4(1)$$

$$24P = 9 + 16 - 4$$

$$24P = 21$$

$$P = \frac{\cancel{24}^7}{\cancel{24}_8} = \frac{7}{8}$$

$$\therefore P = \frac{7}{8}$$

6.

Efectúe

$$M = \left(\frac{5}{4}\right) \div \left(\frac{15}{8}\right) + \left(-\frac{2}{7}\right) \left(\frac{21}{14}\right)$$

## RESOLUCIÓN

$$M = \left(\frac{5}{4}\right) \div \left(\frac{15}{8}\right) + \left(-\frac{2}{7}\right) \left(\frac{21}{14}\right)$$

$$M = \left(\frac{5}{4}\right) \times \left(\frac{8}{15}\right) - \left(\frac{3}{7}\right)$$

$$M = \frac{2}{3} - \frac{3}{7}$$

$$M = \frac{14 - 9}{21}$$

$$M = \frac{5}{21}$$

$$\therefore M = \frac{5}{21}$$

**7.**

Resuelve

$$A = \frac{5}{7} + \frac{18}{13} + \frac{2}{8} + \frac{9}{7} - \frac{5}{13} + \frac{14}{8}$$

**RESOLUCIÓN**

$$A = \frac{5}{7} + \frac{18}{13} + \frac{2}{8} + \frac{9}{7} - \frac{5}{13} + \frac{14}{8}$$

$$A = \frac{5}{7} + \frac{9}{7} + \frac{18}{13} - \frac{5}{13} + \frac{2}{8} + \frac{14}{8}$$

$$A = \frac{14}{7} + \frac{13}{13} + \frac{16}{8}$$

$$A = 2 + 1 + 2$$

$$\therefore A = 5$$



8.

Resuelva

$$\frac{x+2}{5} + \frac{x-3}{2} = \frac{x+5}{4}$$

**RESOLUCIÓN**

$$mcm(5; 2; 4) = 20$$

$$\cancel{20} \left( \frac{x+2}{\cancel{5}} \right) + \cancel{20} \left( \frac{x-3}{\cancel{2}} \right) = \cancel{20} \left( \frac{x+5}{\cancel{4}} \right)$$

$$4(x+2) + 10(x-3) = 5(x+5)$$

$$4x + 8 + 10x - 30 = 5x + 25$$

$$14x - 22 = 5x + 25$$

$$14x - 5x = 25 + 22$$

$$9x = 47$$

$$x = \frac{47}{9}$$

$$\therefore C.S = \left\{ \frac{47}{9} \right\}$$

9.

Calcule el valor de “x” en:

$$5x + 7 - x = 13x - 29 - 11x$$

**RESOLUCIÓN**

$$5x + 7 - x = 13x - 29 - 11x$$

$$4x + 7 = 2x - 29$$

$$4x - 2x = -29 - 7$$

$$2x = -36$$

$$x = -18$$

$$\therefore x = -18$$

## RESOLUCIÓN

10.

Halle el valor de “x”  
en:

$$\frac{5x - 2}{7} = \frac{2x + 4}{4}$$

$$\frac{5x - 2}{7} \quad \begin{array}{c} \text{↖} \\ \text{↗} \end{array} \quad \frac{2x + 4}{4}$$

$$20x - 8 = 14x + 28$$

$$6x = 36$$

$$x = 6$$

$$\therefore x = 6$$