

Trabajo de magnitudes proporcionales

05/10/2021

1) $d \times v_A = d \times v_B \times v_C$ $v_B = 70$ $d \times v_C = d \times v_D$ $z' = 912$
 $30 \cdot 28 = 12 \cdot v_B$ $v_C = 70$ $90 \cdot 70 = 7k \cdot v_D$ $z' = 180 \text{ minutos}$
 $90 = v_D$

2) $v_M = 75$ $75(x-20) = 25x$ $C = 10 \text{ minutos}$
 $v_N = 25$ $75x - 1500 = 25x$
 $v_C = 75$ $50x = 1500$
 $v_A = 25$ $x = 30$

3) $60 \cdot 9^2 = x \cdot 10^2$ $x = 10 \cdot 10$
 $60 \cdot 81 = x \cdot 100$ $x = 100$

4) $\frac{96}{\sqrt{9 \cdot 24}} = \frac{648}{\sqrt{n \cdot 81}}$
 $\frac{4}{3 \cdot 16} = \frac{27}{n \cdot 81}$
 $\sqrt{n} = 4$
 $n = 16$

5) $2 \cdot 9 \cdot 7 = \frac{P_1}{9^2} = \frac{P_2}{4^2} = \frac{P_3}{3^2} = \frac{P_4}{2^2}$ $P_{\text{Total}} = k \cdot P_1 + P_2 + P_3 = 3 \cdot 7 (16 + 9 + 4)$
 $3 \cdot 7 = \frac{P_1}{16} = \frac{P_2}{9} = \frac{P_3}{4}$ $P_{\text{Per } C} = 10 \cdot 7 \cdot 3$
 $2997 - 1073$
 1924

6) $10000 = \frac{P_1}{1000} = \frac{P_2}{1000} = \frac{P_3}{125}$
 $10000 = \frac{P_1}{8} = \frac{P_2}{27} = \frac{P_3}{125}$
 $10(8+27+125)$
 1600
 $10000 - 1600$
 8400

Rpta.: $x = 2$

RAZONAMIENTO MATEMÁTICO

$$7) P = 1200 \cdot \frac{19}{600} = R_{\text{max}}$$

$$P = 2900, \text{ Flow} = 90$$

$$8) \frac{540000}{A} d^2 = \frac{x \cdot 4 d^2}{2A}$$

$$540000 d^2 = \frac{x \cdot 4 d^2}{8}$$

$$\text{Flow} = 90$$

$$9) V, T = K \Rightarrow$$

$$80 \cdot T^2 = 5 \cdot T^3$$

$$2 \cdot 2 = T^3$$

$$28 = T^3$$

$$\text{Flow} = T$$

$$10) R D^2 = \frac{x \cdot (D^2)^2}{L \cdot 5A L}$$

$$R D^2 = \frac{x \cdot D^2}{L \cdot 9.9L}$$

$$\text{x} = 5R$$

$$11) 16(a+8) = 20a \quad \cdot \quad 20 \cdot 32 = \sqrt{32-16} \quad \text{a, b} = 1280$$

$$4a+32 = 5a \quad 20 \cdot 32 = b \cdot 16$$

$$32 = a \quad 40 = b$$

$$12) \frac{8}{12} = \frac{a}{18} \quad a, 18 = b \cdot 36 \quad \text{a+b} = 18$$

$$12 = 18 \quad 12 \cdot 18 = b \cdot 36$$

$$12 = a \quad 6 = b$$

$$13) \frac{6}{(\sqrt{3})^2} = \frac{A}{(\sqrt{5})^2} \quad 10\sqrt{5} = A \cdot 2\sqrt{5} \quad \text{4} \cdot \frac{4 \cdot 24}{4} = 6 \rightarrow B(4,6)$$

$$\frac{6}{3} = \frac{A}{5} \Rightarrow A = 6 \quad B = \sqrt{3}$$

$$= \frac{24}{a} = 12 \rightarrow a = 2$$

$$\frac{6}{10} = \frac{A}{5} \Rightarrow A = 3 \quad B = 2\sqrt{5}$$

$$\frac{a}{b} = \frac{4}{6} \rightarrow \frac{2 \cdot 4}{b \cdot 6}$$

$$\text{A} = 5$$

$$\text{a+b} = 5 \quad b = 3$$