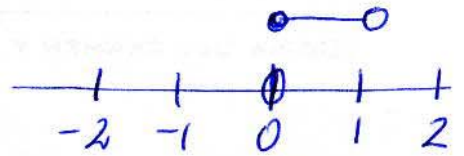


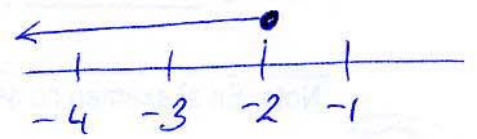
Primera

①

$$A = \{x \in \mathbb{R} / 0 \leq x < +1\} \quad [0, 1)$$



$$B = (-\infty, -2] \quad B = \{x \in \mathbb{R} / x \leq -2\}$$



② $2\sqrt{5} + 4\sqrt{6} - 3\sqrt{5} = \frac{5}{2} + \frac{42}{9} - \frac{32}{9} = \frac{45 + 84 - 64}{18} =$

$$2\sqrt{5} = \frac{25}{10} = \frac{5}{2}$$

$$= \frac{65}{18} = \underline{\underline{3\sqrt{6}}}$$

$$4\sqrt{6} = \frac{46-4}{9} = \frac{42}{9} = 4\sqrt{6}$$

$$3\sqrt{5} = \frac{35-3}{9} = \frac{32}{9}$$

③

$$\frac{\sqrt{x^3 \cdot y^7 \sqrt[5]{y^7}}}{\sqrt[3]{x^7 \sqrt{y^5}}} = \frac{x^{\frac{3}{2}} \cdot y^{\frac{7}{2}} \cdot y^{\frac{7}{10}}}{x^{\frac{7}{3}} \cdot y^{\frac{5}{6}}} =$$

$$= x^{\frac{3}{2} - \frac{7}{3}} \cdot y^{\frac{7}{2} + \frac{7}{10} - \frac{5}{6}} = x^{\frac{9-14}{6}} \cdot y^{\frac{105+21-25}{30}}$$

$$= x^{-\frac{5}{6}} \cdot y^{\frac{101}{30}}$$

$$(4) \quad 3\sqrt{300} - 5\sqrt{48} + 2\sqrt{50} =$$

$$\begin{array}{r|l} 300 & 2 \\ 150 & 2 \\ 75 & 3 \\ 25 & 5 \\ 5 & 5 \\ 1 & \end{array}$$

$$\begin{array}{r|l} 48 & 2 \\ 24 & 2 \\ 12 & 2 \\ 6 & 2 \\ 3 & 3 \\ 1 & \end{array}$$

$$\begin{array}{r|l} 50 & 2 \\ 25 & 5 \\ 5 & 5 \\ 1 & \end{array}$$

$$\begin{aligned} &= 3 \cdot \sqrt{2^2 \cdot 3 \cdot 5^2} - 5 \sqrt{2^4 \cdot 3} + 2 \sqrt{5^2 \cdot 2} = \\ &= 2 \cdot 5 \cdot 3 \sqrt{3} - 5 \cdot 2^2 \sqrt{3} + 2 \cdot 5 \sqrt{2} = \\ &= 30\sqrt{3} - 20\sqrt{3} + 10\sqrt{2} = \\ &= 10\sqrt{3} + 10\sqrt{2} \end{aligned}$$

*

$$(5) \quad \sqrt[5]{537824} = \sqrt[5]{2^5 \cdot 7^5} = 2 \cdot 7 = 14$$

$$\begin{array}{r|l} 537824 & 2 \\ 268912 & 2 \\ 134456 & 2 \\ 67228 & 2 \\ 33614 & 2 \\ 16807 & 7 \\ 2401 & 7 \\ 343 & 7 \\ 49 & 7 \\ 7 & 7 \\ 1 & \end{array}$$

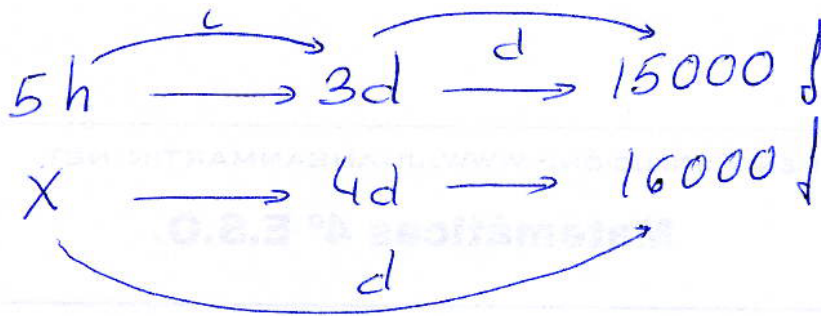
$$\sqrt[6]{15625} = \sqrt[6]{5^6} = 5$$

$$\begin{array}{r|l} 15625 & 5 \\ 3125 & 5 \\ 625 & 5 \\ 125 & 5 \\ 25 & 5 \\ 5 & 5 \\ 1 & \end{array}$$

$$\begin{aligned} * \quad \sqrt[3]{\sqrt[4]{729}} - \sqrt{9} &= \sqrt[4]{729} - \sqrt{9} = \\ &= \sqrt[4]{3^6} - 3 = 3\sqrt[4]{3^2} - 3 \end{aligned}$$

$$\begin{array}{r|l} \sqrt{729} & \\ 729 & 3 \\ 243 & 3 \\ 81 & 3 \\ 27 & 3 \\ 9 & 3 \\ 3 & 3 \\ 1 & \end{array}$$

⑥

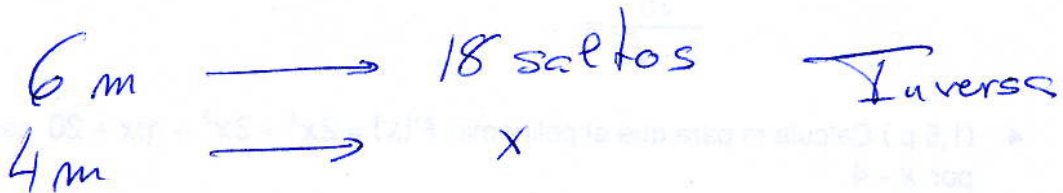


$$\frac{5 \cdot 3}{X \cdot 4} = \frac{15000}{16000}$$

$$X \cdot 4 \cdot 15000 = 16000 \cdot 5 \cdot 3$$

$$X = \frac{16000 \cdot 5 \cdot 3}{4 \cdot 15000} = \underline{\underline{4 \text{ días}}}$$

⑦



$$6 \cdot 18 = 4 \cdot X$$

$$X = \frac{6 \cdot 18}{4} = \underline{\underline{27 \text{ saltos}}}$$