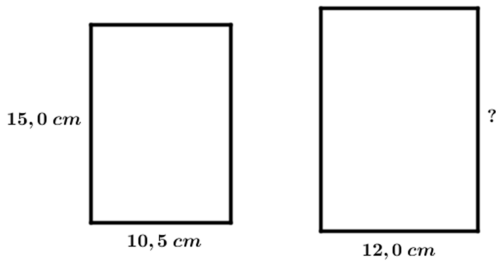


1. Determina il lato, sapendo che i lati sono in proporzione:



$$15,0 \text{ cm} : x = 10,5 \text{ cm} : 12,0 \text{ cm}$$

$$x = \frac{15,0 \text{ cm} \cdot 12,0 \text{ cm}}{10,5 \text{ cm}} = 17,1 \text{ cm}$$

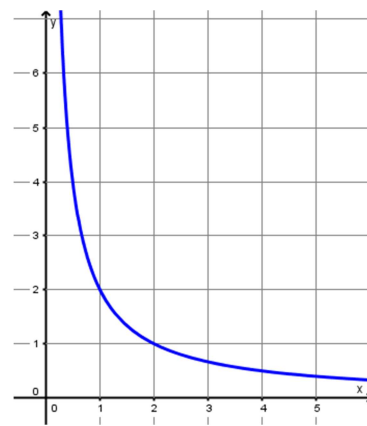
2. Completa la tabella come nell'esempio:

10 %	450	<u>45</u>	$x : 450 = 10 : 100$
20 %	230	46	$x : 230 = 20 : 100$
32 %	150	48	$48 : x = 32 : 100$
3,6 %	7500	270	$270 : 7500 = x : 100$

3. Osserva i grafici e determinane l'equazione:



$$y = 3x$$



$$y = \frac{2}{x}$$

4. Isola le incognite indicate:

A	B	C	D
$A = \frac{C}{B} + D$	$B = \frac{C}{A - D}$	$C = B(A - D)$	$D = A - \frac{C}{B}$
$A = \frac{B - D}{C}$	$B = AC + D$	$C = \frac{B - D}{A}$	$D = B - AC$

5. Completa come nell'esempio:

$$10^7 = 10\,000\,000$$

$$10^{11} = \mathbf{100\,000\,000\,000}$$

$$\mathbf{10^4} = 10\,000$$

$$10^{-4} = \mathbf{0,0001}$$

$$\mathbf{10^{-10}} = 0,0000000001$$

6. Risolvi le seguenti equazioni:

$$4x = 35$$

$$x = \frac{\mathbf{35}}{\mathbf{4}}$$

$$27 - x = 30$$

$$-x = 30 - 27$$

$$-x = 3$$

$$x = \mathbf{-3}$$

$$5x - 9 = 31$$

$$5x = 31 + 9$$

$$5x = 40$$

$$x = \mathbf{8}$$

$$30x + 12 = 72$$

$$30x = 72 - 12$$

$$30x = 60$$

$$x = \mathbf{2}$$

7. In media facciamo un respiro ogni 3 s. Calcola il numero di respiri effettuato in 80 anni e scrivilo in notazione scientifica con due cifre significative.

$$\frac{60\,s}{3\,s} \cdot 60 \cdot 24 \cdot 365 \cdot 80 = \mathbf{8,4 \cdot 10^8}$$

8. Risolvi le seguenti equivalenze:

$$0,000073\,Gs = \mathbf{73\,000\,s} = \mathbf{0,000000073\,Ts}$$

$$15\,000\,000\,ps = \mathbf{15\,000\,ns} = \mathbf{0,000000015\,ks}$$

$$45,6\,m = \mathbf{0,0456\,km} = \mathbf{4560\,cm}$$

$$2,54\,cm = \mathbf{25,4\,mm} = \mathbf{0,254\,dm}$$

$$15\,\mu g = \mathbf{15\,000\,ng} = \mathbf{0,000015\,g}$$

$$23,09\,cm^2 = \mathbf{0,2309\,dm^2} = \mathbf{0,002309\,m^2}$$

$$6\,km^2 = \mathbf{6\,000\,000\,m^2} = \mathbf{6\,000\,000\,000\,000\,mm^2}$$

$$12,5\,mL = \mathbf{0,0125\,L} = \mathbf{1,25\,cL}$$

$$0,674\,hL = \mathbf{674\,dL} = \mathbf{67,4\,L}$$

$$672\,g = \mathbf{0,672\,kg} = \mathbf{672\,000\,mg}$$

9. Completa la seguente tabella:

densità	massa	volume
300 kg/m ³	300 kg	$\mathbf{1\,m^3}$
$\mathbf{1200\,kg/m^3}$	90 kg	0,075 m ³
300 kg/m ³	$\mathbf{0,0024\,kg}$	8,0 cm ³