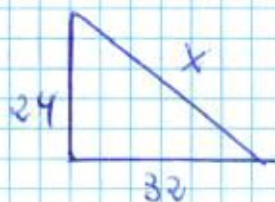


(10)



$$x^2 = 32^2 + 24^2 = 1.024 + 576 = 1.600$$

$$x = \sqrt{1.600} = 40$$

$$\underline{\underline{x = 40 \text{ cm}}}$$

(11) a)

$$8^2 \stackrel{?}{=} 5^2 + 4^2$$

$$64 \neq 25 + 16 \quad \text{No es un triángulo rectángulo}$$

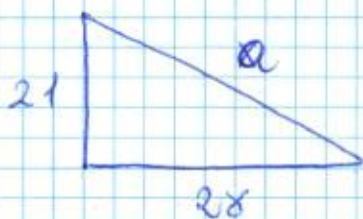
b)

$$10^2 = 8^2 + 6^2 = 64 + 36$$

$$100 = 100 \quad \text{Sí es un triángulo rectángulo}$$

(12)

• Suponemos que los lados conocidos son catetos

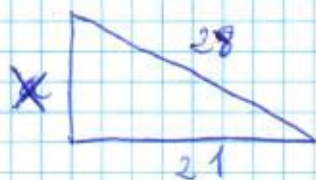


$$a^2 = b^2 + c^2 = 21^2 + 28^2 = 1.225$$

$$a = \sqrt{1.225} = 35$$

$$a = 35$$

• Suponemos que conocemos la hipotenusa y un lado

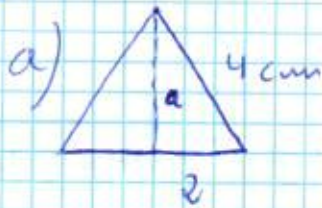


$$28^2 = 21^2 + x^2 // \quad x^2 = 28^2 - 21^2 = 343$$

$$x = \sqrt{343} = 18'52 \text{ cm}$$

$$\underline{\underline{x = 18'52 \text{ cm}}}$$

14



$$4^2 = 2^2 + a^2 // a^2 = 4^2 - 2^2 = 16 - 4 = 12$$

$$a = \sqrt{12} = \underline{\underline{3'46 \text{ cm}}}$$

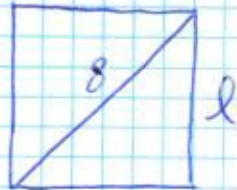
b)



$$a^2 = 6^2 + 6^2 = 72$$

$$a = \sqrt{72} = \underline{\underline{8'49 \text{ cm}}}$$

15



$$8^2 = l^2 + l^2 = 2l^2$$

$$l^2 = \frac{64}{2} = 32$$

$$l = \sqrt{32} = \underline{\underline{5'66 \text{ cm}}}$$

16



$$x^2 = 28^2 + \left(\frac{x}{2}\right)^2 = 784 + \frac{x^2}{4}$$

$$x^2 - \frac{x^2}{4} = 784 // \frac{4x^2}{4} - \frac{x^2}{4} = 784$$

$$\frac{3x^2}{4} = 784 // 3x^2 = 784 \cdot 4 = 3136$$

$$x = \sqrt{\frac{3136}{3}} = \underline{\underline{32'33 \text{ cm}}}$$

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(57) Los gramos de queso y el área (o el diámetro) son directamente proporcionales.

	A	B	
Área	$\pi \cdot 5^2$	$\pi \cdot 10^2$	↑
Queso	100	x	↑

Directa

$$\frac{\pi \cdot 5^2}{100} = \frac{\pi \cdot 10^2}{x} // x = \frac{100 \cdot \pi \cdot 10^2}{\pi \cdot 5^2} = \underline{\underline{400 \text{ gr.}}}$$

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(63)

$$\frac{x}{8+4+3} = \frac{800}{8} = \frac{15}{4} = \frac{2}{3}$$

$$\frac{x}{15} = \frac{800}{8} // x = \frac{15 \cdot 800}{8} = \underline{\underline{1.500 \text{ €}}}$$

(66)

$$\frac{x}{\frac{1}{25} + \frac{1}{20} + \frac{1}{16}} = \frac{800}{\frac{1}{25}} = \frac{y}{\frac{1}{20}} = \frac{z}{\frac{1}{16}}$$

$$\frac{1}{25} + \frac{1}{20} + \frac{1}{16}$$

25 5	20 2	16 2
5 5	10 2	8 2
1	5 5	4 2
	1	2 2
		1

$$\left. \begin{array}{l} 25 = 5^2 \\ 20 = 2^2 \cdot 5 \\ 16 = 2^4 \end{array} \right\} \text{m.c.m.} = 5^2 \cdot 2^4 = 400$$

$$\frac{16}{400} + \frac{20}{400} + \frac{25}{400} = \frac{61}{400}$$

$$\frac{x}{61/400} = \frac{800}{1/25} \quad // \quad \frac{400x}{61} = 25 \cdot 800 \quad // \quad x = \frac{25 \cdot 800 \cdot 61}{400}$$

$$\underline{\underline{x = 3.050 \text{ €}}}$$

(74)

a) Trabajadores

100	120	↑
300	x	↓ Inversa

$$100 \cdot 300 = 120 \cdot x \quad // \quad x = \frac{100 \cdot 300}{120} = \underline{\underline{250}}$$

$$\underline{\underline{x = 250 \text{ trabajadores}}}$$

74b

trabajadores	100	80	↓
Días	300	x	↑

Inversa

$$100 \cdot 300 = 80 \cdot x \quad // \quad x = \frac{100 \cdot 300}{80} = 375$$

La construcción se retrasaría 75 días

74c

trabajaja	Horas	Días
100	8	300
80	9	x

Inversa

$$\frac{80}{100} \cdot \frac{9}{8} = \frac{300}{x} \quad // \quad \frac{720}{800} = \frac{300}{x}$$

$$x = \frac{800 \cdot 300}{720} = \underline{\underline{333'33 \text{ días}}}$$