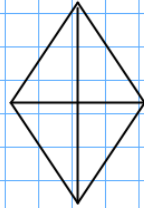


In un rombo la somma delle diagonali è 42 cm e la diagonale maggiore è $\frac{4}{3}$ di quella minore.

Trova l'area.

Trova il perimetro di un quadrato equivalente.



$$D + d = \text{cm } 42$$

$$D = \frac{4}{3} d$$

$$\frac{4}{3} + \frac{3}{3} = \frac{7}{3} \equiv \text{cm } 42$$

$$42 : 7 = 6 \text{ cm U.F.}$$

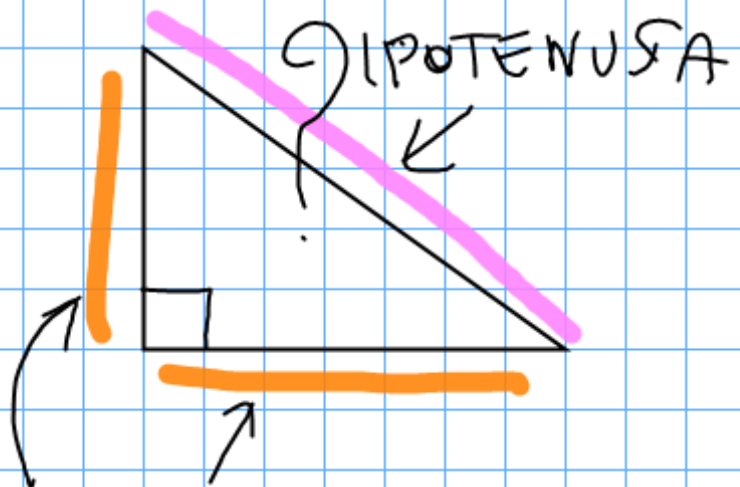
$$D = 4 \times 6 = 24 \text{ cm}$$

$$d = 3 \times 6 = 18 \text{ cm}$$

$$A = (D \times d) / 2 = 24 \times 18 / 2 = 216 \text{ cm}^2$$

$$l = \sqrt{A} = \sqrt{216} \hat{=} 14,7 \text{ cm}$$

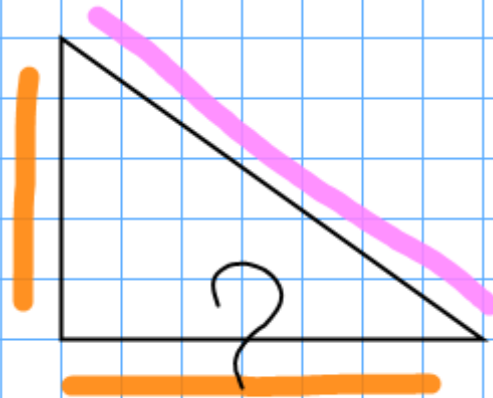
$$2p = 4 \times l = 4 \times 14,7 = 58,8 \text{ cm}$$



CATETI

$$h^2 = c^2 + c^2$$

$$h = \sqrt{c^2 + c^2}$$



$$c = \sqrt{h^2 - c^2}$$

TERNE PITAGORICHE

$$3-4-5$$

$$5-12-13$$

$$8-15-17$$

$$\times 2 \quad 6-8-10$$

$$10-24-26$$

$$16-30-34$$

$$\times 3 \quad 9-12-15$$

$$15-36-39$$

$$24-45-51$$

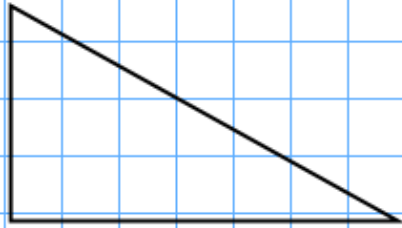
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TEOREMA DI PITAGORA

In un triangolo rettangolo l'ipotenusa misura cm 50 e il cateto minore cm 14. Trova perimetro e area.



DATI

$$i = 50 \text{ cm}$$

$$c = 14 \text{ cm}$$

$$p = ?$$

$$A = ?$$

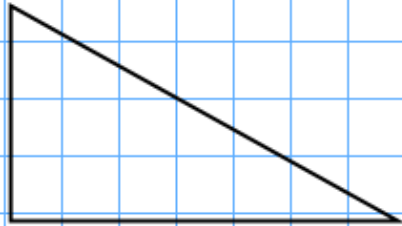
$$C = \sqrt{i^2 - c^2} = \sqrt{50^2 - 14^2} = \sqrt{2500 - 196} = \sqrt{2304} = 48 \text{ cm}$$

$$p = C + c + i = 48 + 14 + 50 = 112 \text{ cm}$$

$$A = \frac{C \times c}{2} = \frac{48 \times 14}{2} = 336 \text{ cm}^2$$

TEOREMA DI PITAGORA

In un triangolo rettangolo i due cateti misurano cm 10 e cm 24. Trova perimetro e area.



DATI

$$C = 24 \text{ cm}$$

$$C = 10 \text{ cm}$$

$$p = ?$$

$$A = ?$$

$$i = \sqrt{C^2 + C^2} = \sqrt{24^2 + 10^2} = \sqrt{576 + 100} = \sqrt{676} = 26 \text{ cm}$$

$$p = C + C + i = 24 + 10 + 26 = 60 \text{ cm}$$

$$A = \frac{C \times C}{2} = \frac{24 \cdot 10}{2} = 120 \text{ cm}^2$$

$$\sqrt{5^7} - \sqrt{5^4} : \sqrt{5^3} - \frac{25}{\sqrt{5}} - \sqrt{45} =$$

$$= 5^3 \sqrt{5} - \sqrt{5^4} : 5^3 - \frac{25 \sqrt{5}}{5} - \sqrt{5 \cdot 9} =$$

$$= 125 \sqrt{5} - \sqrt{5} - 5 \sqrt{5} - 3 \sqrt{5} =$$

$$= 116 \sqrt{5}$$

200 $\sqrt{\left[\left(\frac{3}{7} + \frac{5}{14} - \frac{1}{2}\right) \times \frac{2}{3} - \left(\frac{5}{3} + \frac{1}{4} + \frac{1}{21}\right) : 11\right] \times \frac{12}{7}}$

$$= \sqrt{\left[\frac{6+5-7}{14} \times \frac{2}{3} - \frac{140+21+4}{84} \times \frac{1}{11}\right] \times \frac{12}{7} =}$$

$$= \sqrt{\left[\frac{4}{21} \times \frac{2}{3} - \frac{165}{84} \times \frac{1}{11}\right] \times \frac{12}{7} =}$$

$$= \sqrt{\left[\frac{4}{21} - \frac{15}{84}\right] \times \frac{12}{7} =}$$

$$= \sqrt{\frac{16-15}{84} \times \frac{12}{7}} = \sqrt{\frac{1}{7} \times \frac{1}{7}} = \sqrt{\frac{1}{49}} = \frac{1}{7}$$

$$201 \quad \sqrt{\left(\frac{1}{2} + \frac{3}{4}\right) \cdot \left(2 - \frac{3}{2}\right) - \left(\frac{7}{3} + \frac{1}{4} - \frac{5}{2}\right) \times 3 + \left(\frac{2}{5} - \frac{1}{4}\right) \times \frac{35}{3}}$$

$$= \sqrt{\frac{2+3}{4} \cdot \frac{1}{2} - \frac{28+3-30}{12} \times 3 + \frac{8-5}{20} \times \frac{35}{3}}$$

$$= \sqrt{\frac{5}{4} \times \frac{1}{2} - \frac{1}{4} \times 3 + \frac{3}{20} \times \frac{35}{3}}$$

$$= \sqrt{\frac{5}{2} - \frac{1}{4} + \frac{7}{4}} = \sqrt{\frac{10-1+7}{4}} = \sqrt{\frac{16}{4}} = \sqrt{4} = 2$$

$$\rightarrow \sqrt{\frac{16}{4}} = \frac{4}{2} = 2$$