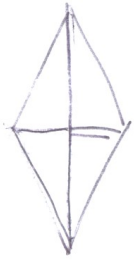


1. In un rombo la somma delle diagonali è di cm 42 e quella maggiore è $\frac{4}{3}$ di quella minore. Trova l'area.
+ trova il perimetro di un quadrato equivalente.
2. In un rettangolo la base è $\frac{3}{8}$ dell'altezza che misura cm 32. Calcola perimetro e area.
+ trova la diagonale minore di un rombo equivalente la cui diagonale maggiore misura cm 24.
3. Un quadrato ha l'area di cm^2 324. Calcola il perimetro.
+ Calcola il perimetro di un rettangolo equivalente avente l'altezza di cm 9.

$$\sqrt{\frac{10}{3} \times \frac{3}{5} + \frac{3}{4} - \frac{1}{2}} + \sqrt{\frac{3}{8} \times \left(8 + \frac{1}{3}\right) \times \left(1 - \frac{23}{25}\right)} =$$

$$\sqrt{\frac{1}{2} \times \left(\frac{5}{2} + 2\right) : \left[\left(\frac{1}{2} + \frac{1}{3}\right) \times \frac{1}{6} - \frac{1}{36}\right] : \left(1 + \frac{5}{4}\right)} =$$

$$\sqrt{35} - \frac{\sqrt{30}}{\sqrt{10}} + \frac{9}{\sqrt{3}} - \sqrt{12} =$$



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

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

$$A = ? = A_R$$

$$2p_R = ?$$

$$\frac{4}{3} + \frac{3}{3} = \frac{7}{3} \text{ TOTAL PARTS}$$

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

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

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

$$A = \frac{D \times d}{2} = \frac{24 \times 18}{2} = \frac{432}{2} = 216 \text{ cm}^2$$

$$l_q = \sqrt{A} = \sqrt{216} = 14.7 \text{ cm} \quad 2p_q = 4l = 4 \cdot 14.7 = 58.8 \text{ cm}$$



$$b = \frac{3}{8}h \quad D_r = 24 \text{ cm}$$

$$h = 32 \text{ cm}$$

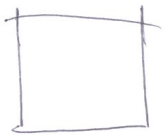
$$2p = ? \quad A = ? = A_{\text{rectangle}}$$

$$b = \frac{3}{8}h = \frac{3}{8} \cdot 32 = 12 \text{ cm}$$

$$A = b \times h = 12 \cdot 32 = 384 \text{ cm}^2$$

$$2p = (b+h) \cdot 2 = (12+32) \cdot 2 = 44 \cdot 2 = 88 \text{ cm}$$

$$d = \frac{2A}{D} = \frac{2 \cdot 384}{24} = 32 \text{ cm}$$



$$A_q = A_r = 324 \text{ cm}^2$$

$$2p_q = ? \quad h_{\text{rect}} = 9 \text{ cm} \quad 2p_{\text{rect}} = ?$$

$$l = \sqrt{A} = \sqrt{324} = 18 \text{ cm}$$

$$2p_q = 4l = 4 \cdot 18 = 72 \text{ cm}$$

$$b_{\text{rect}} = \frac{A}{h} = \frac{324}{9} = 36 \text{ cm}$$

$$2p_{\text{rect}} = (b+h) \cdot 2 = (36+9) \cdot 2 = 45 \cdot 2 = 90 \text{ cm}$$

$$\begin{aligned}
 &= \sqrt{\frac{10^2}{3} \times \frac{3}{5} + \frac{3}{4} - \frac{1}{2}} + \sqrt{\frac{3^1}{8} \times \frac{25}{3} \times \frac{1}{25}} \\
 &= \sqrt{2 + \frac{3}{4} - \frac{1}{2}} + \sqrt{\frac{1}{4}} = \sqrt{\frac{8+3-2}{4}} + \frac{1}{2} = \sqrt{\frac{9}{4}} + \frac{1}{2} = \frac{3}{2} + \frac{1}{2} = \frac{4}{2} = 2
 \end{aligned}$$

$$\begin{aligned}
 &\sqrt{\frac{1}{2} \times \left(\frac{5}{2} + 2\right) : \left[\left(\frac{1}{2} + \frac{1}{3}\right) \times \frac{1}{6} - \frac{1}{36}\right] : \left(1 + \frac{5}{4}\right)} = \\
 &= \sqrt{\frac{1}{2} \times \frac{9}{2} : \left[\frac{3+2}{6} \times \frac{1}{6} - \frac{1}{36}\right] : \frac{9}{4}} \\
 &= \sqrt{\frac{1}{2} \times \frac{9}{2} : \left[\frac{5}{6} \times \frac{1}{6} - \frac{1}{36}\right] \times \frac{4}{9}} \\
 &= \sqrt{\frac{1}{2} \times \frac{9}{2} : \left[\frac{5}{36} - \frac{1}{36}\right] \times \frac{4}{9}} = \\
 &= \sqrt{\frac{1}{2} \times \frac{9}{2} \times \frac{36^9}{4} \times \frac{4}{9}} = \sqrt{9} = 3
 \end{aligned}$$

$$\begin{aligned}
 &= 3^2\sqrt{3} - \sqrt{3} + \frac{38\sqrt{3}}{3} - \sqrt{4 \cdot 3} = \\
 &= 9\sqrt{3} - \sqrt{3} + 3\sqrt{3} - 2\sqrt{3} = 9\sqrt{3}
 \end{aligned}$$