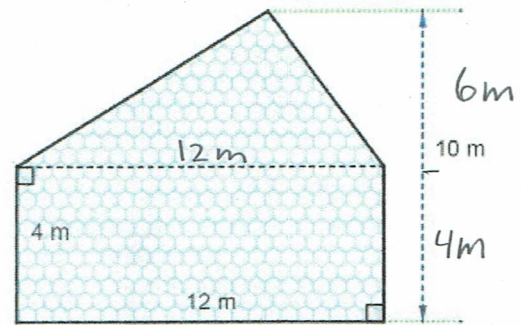


9. Myndin gæti verið af húsi. En til að reikna flatarmál hennar þarf að skipta henni í búta, form sem við getum unnið með. Gerðu það.



$$F = F_{\square} + F_{\triangle} = l \cdot b + \frac{g \cdot h}{2}$$

$$= 12\text{m} \cdot 4\text{m} + \frac{12\text{m} \cdot 6\text{m}}{2} = 48\text{m}^2 + 36\text{m}^2$$

$$= \underline{\underline{84\text{m}^2}}$$

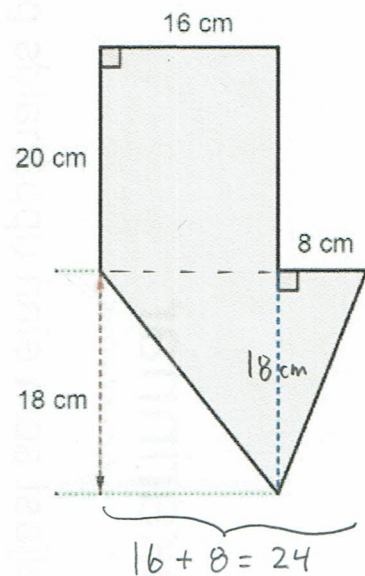
10. Reiknaðu flatarmál myndarinnar.

$$F = F_{\square} + F_{\triangle} = l \cdot b + \frac{g \cdot h}{2}$$

$$= 20\text{cm} \cdot 16\text{cm} + \frac{24\text{cm} \cdot 18\text{cm}}{2} =$$

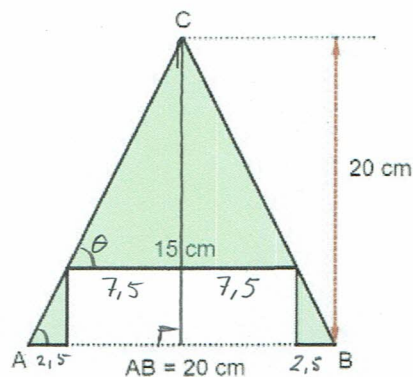
$$= 320\text{cm}^2 + 216\text{cm}^2$$

$$= \underline{\underline{536\text{cm}^2}}$$



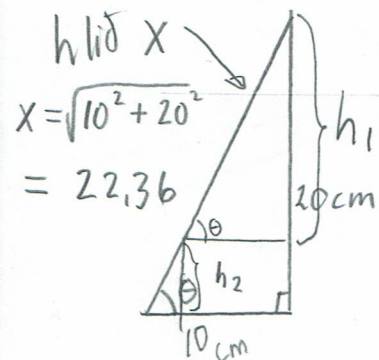
jafnarma \Rightarrow tvö horn jafn stór

11. Grunnlína og hæð jafnarma þríhyrnings er 20 cm hvort tveggja.
Reiknaðu flatarmál og ummál litaða svæðisins.



Flatarmál er einn stór þríhyrningur og tveir litlir sem eru eins.

$$F = F_{\Delta} + 2F_{\Delta} = \frac{g_1 \cdot h_1}{2} + 2 \cdot \frac{g_2 \cdot h_2}{2}$$



$$\tan \theta = \frac{20}{10} \quad \theta = \tan^{-1}(2) = 63,43^\circ$$

h_1 - hæð í stærra þríhyrningi, h_2 - hæð í minni Δ .

$$\frac{h_1}{7,5} = \tan(63,43^\circ) \quad h_1 = 7,5 \cdot \tan(63,43^\circ) = 15$$

$$\frac{h_2}{2,5} = \tan(63,43^\circ) \quad h_2 = 2,5 \cdot \tan(63,43^\circ) = 5$$

$$F = \frac{15 \text{ cm} \cdot 15 \text{ cm}}{2} + \frac{2 \cdot 2,5 \text{ cm} \cdot 5 \text{ cm}}{2} = 112,5 \text{ cm}^2 + 12,5 \text{ cm}^2 = \underline{\underline{125 \text{ cm}^2}}$$

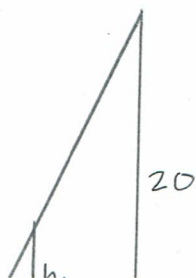
$$U = 2 \times 22,36 \text{ cm} + 2 \times 2,5 \text{ cm} + 2 \times 5 \text{ cm} + 15 \text{ cm} = (44,72 + 5 + 10 + 15) \text{ cm}$$

$$U = \underline{\underline{74,72 \text{ cm}}}$$

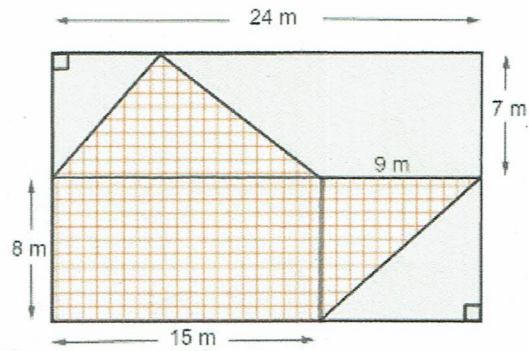
Önnur leið - Nota reglu um einslaga þríhyrninga

$$\frac{10}{2,5} = 4 \quad \frac{20}{h_2} = 4 \quad h_2 = \frac{20}{4} = 5$$

$$h_2 = 20 - 5 = 15$$



13. Reiknaðu flatarmál mynstraða hluta myndarinnar. Línur netsins eru hornréttar á hliðar rammans.



$$F = F_{\square} + F_{\triangle} + F_{\nabla}$$

$$= l \cdot b + \frac{g \cdot h}{2} + \frac{g \cdot h}{2}$$

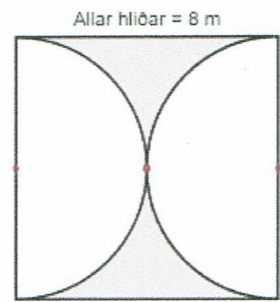
$$= 8\text{m} \cdot 15\text{m} + \frac{15\text{m} \cdot 7\text{m}}{2} + \frac{9\text{m} \cdot 8\text{m}}{2}$$

$$= 120\text{m}^2 + 52,5\text{m}^2 + 36\text{m}^2$$

$$= \underline{\underline{208,5\text{m}^2}}$$

15. Reiknaðu flatarmál og ummál skyggða svæðisins í ferningnum.

$$\begin{aligned} F &= F_{\square} - F_{\circ} = l \cdot b - \pi \cdot r^2 \\ &= 8\text{m} \cdot 8\text{m} - \pi \cdot (4\text{m})^2 \\ &= 64\text{m}^2 - 50,27\text{m}^2 \\ &= \underline{\underline{13,73\text{m}^2}} \end{aligned}$$



radius = 4m

Ummálið eru tvær hliðar og hringur

$$U_{\circ} = 2 \cdot r \cdot \pi$$

$$U = 2 \cdot 8\text{m} + 2 \cdot 4\text{m} \cdot \pi = 16\text{m} + 25,13\text{m} = \underline{\underline{41,13\text{m}}}$$