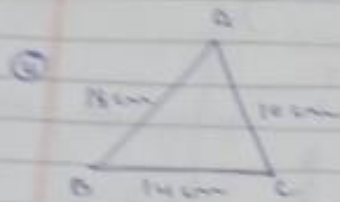


21/9/2021

21

Heronsformel



$$AB = 18 \text{ cm}, \text{ Perimeter} = 42 \text{ cm}$$
$$AC = 10 \text{ cm}$$

$$18 + 10 = 28$$

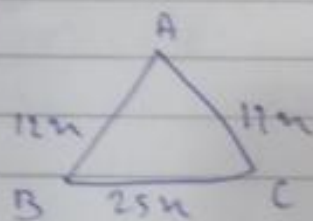
$$42 - 28 = 14 \text{ cm}$$

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

$$s = \frac{\text{Perimeter}}{2} \quad s = \frac{42}{2} \quad s = 21 \text{ cm}$$

$$\begin{aligned} \text{Area} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{21(21-18)(21-10)(21-14)} \\ &= \sqrt{21 \times 3 \times 11 \times 7} \\ &= 3 \times 7 \sqrt{11} \\ &= 21\sqrt{11} \text{ cm}^2 \end{aligned}$$

⑤



$$\text{Perimeter} = 540 \text{ cm}$$

$$\rightarrow 12u + 17u + 25u = 540$$

$$= 54u = 540$$

$$= u = \frac{540}{54} = u = 10$$

sides of triangles = $12 \times 10 = 120 \text{ cm}$

$17 \times 10 = 170 \text{ cm}$

$25 \times 10 = 250 \text{ cm}$

$s = \text{perimeter} = \frac{540}{2} = 270 \text{ cm}$

$$\begin{aligned} \text{area} &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{270(270-120)(270-170)(270-250)} \\ &= \sqrt{270 \times 150 \times 100 \times 20} \\ &= 8 \times 125 \times 9 \\ &= 125 \times 72 \\ &= 9000 \text{ cm}^2 \end{aligned}$$