

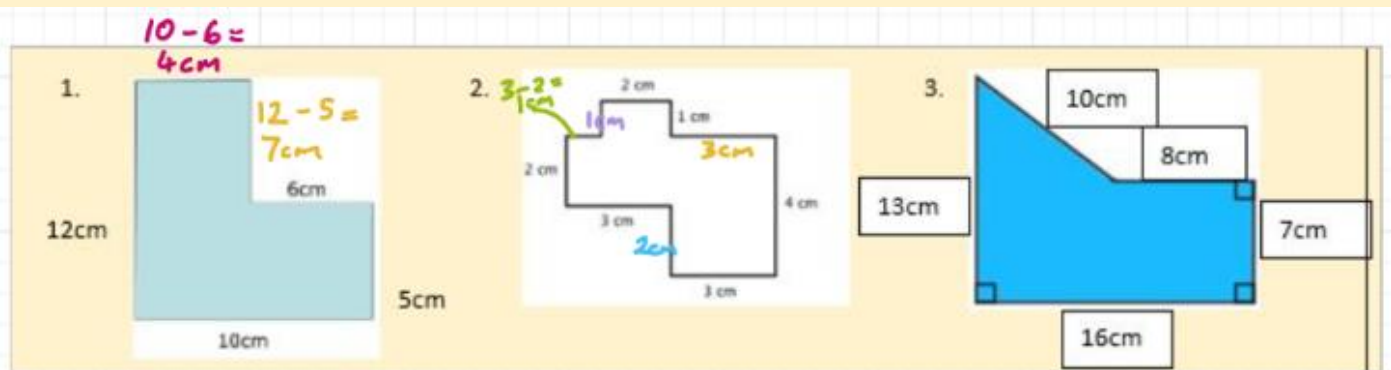


Grade 8

Mathematics

Area and Perimeter

Question 1: Find the perimeter of each of the following shapes

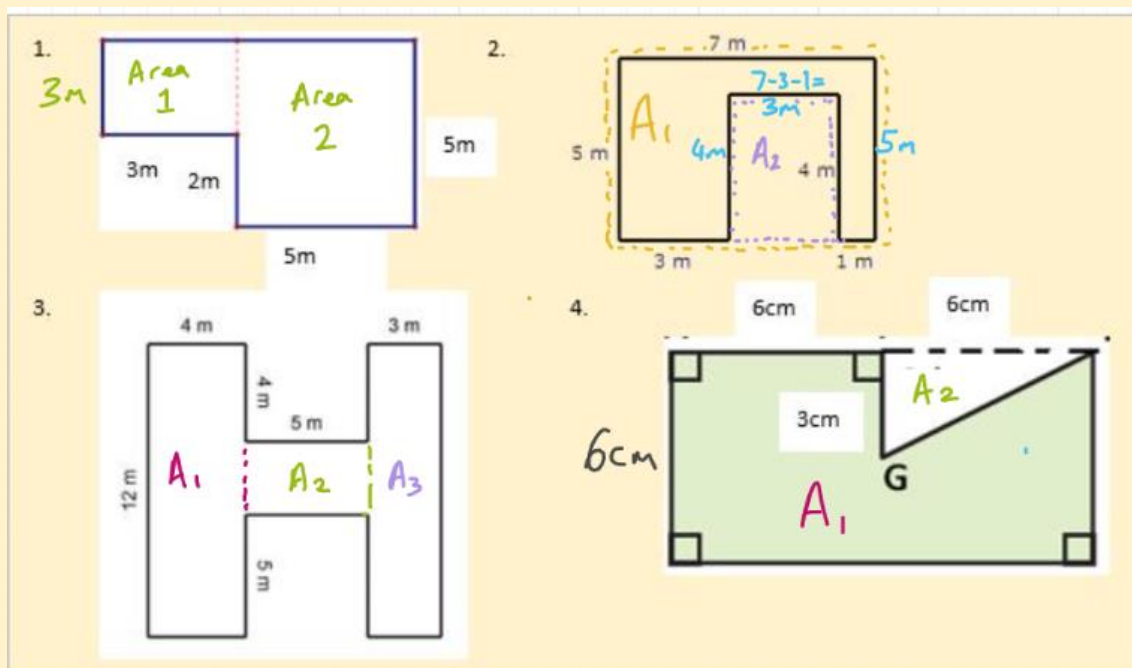


① $P = 12 + 4 + 7 + 6 + 5 + 10$
 $P = 44 \text{ cm}$

② $P = 2 + 1 + 1 + 2 + 1 + 3 + 4 + 3 + 2 + 3$
 $P = 22 \text{ cm}$

③ $P = 13 + 10 + 8 + 7 + 16 + 7$
 $P = 54 \text{ cm}$

Question 2: Find the area of the following shapes



$$\begin{aligned} \textcircled{2} \text{ Area 1} &= L \times B \\ &= 7 \times 5 \\ &= 35 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Area 2} &= L \times B \\ &= 4 \times 3 \\ &= 12 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Total Area} &= A_1 - A_2 \\ &= 35 - 12 \\ &= 23 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \textcircled{1} \text{ Area 1} &= s^2 \quad (\text{although it doesn't} \\ &= 3^2 \quad \text{look like a square,} \\ &= 9 \text{ m}^2 \quad \text{measurements say} \\ & \quad \text{it is one!}) \end{aligned}$$

$$\begin{aligned} \text{Area 2} &= s^2 \\ &= 5^2 \\ &= 25 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Total Area} &= A_1 + A_2 \\ &= 9 + 25 \\ &= 34 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \textcircled{3} A_1 &= L \times B \\ &= 12 \times 4 \\ &= 48 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} A_2 &= L \times B & A_{\text{Total}} &= A_1 + A_2 + A_3 \\ &= 5 \times 3 & &= 48 + 15 + 36 \\ &= 15 \text{ m}^2 & &= 99 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} A_3 &= L \times B \\ &= 12 \times 3 \\ &= 36 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \textcircled{4} A_1 &= L \times B \\ &= 12 \times 6 \\ &= 72 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} A_2 &= \frac{1}{2} b \times h \\ &= \frac{1}{2} \cdot 6 \times 3 \\ &= 9 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} A_T &= A_1 - A_2 \\ &= 72 - 9 \\ &= 63 \text{ cm}^2 \end{aligned}$$