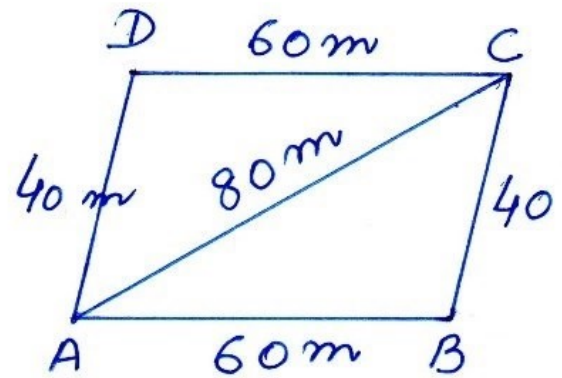


6.  $\triangle ABC$ 

$$\begin{aligned}
 s &= \frac{a+b+c}{2} \\
 &= \frac{40+60+80}{2} \\
 &= \frac{180}{2} \\
 &= 90 \text{ m}
 \end{aligned}$$



$$\begin{aligned}
 \text{area of } \triangle ABC &= \sqrt{s(s-a)(s-b)(s-c)} \\
 &= \sqrt{90(90-40)(90-60)(90-80)} \\
 &= \sqrt{90 \times 50 \times 30 \times 10} \\
 &= \sqrt{9 \times 10 \times 5 \times 10 \times 3 \times 10 \times 10} \\
 &= 10 \times 10 \sqrt{3 \times 3 \times 5 \times 3} \\
 &= 300 \sqrt{15} \text{ m}^2
 \end{aligned}$$

$$\begin{aligned}
 \text{area of } \text{||gm } ABCD &= 2 \text{ ar } (\triangle ABC) \quad * \\
 &= 2 \times 300 \sqrt{15} \\
 &= 600 \sqrt{15} \text{ m}^2
 \end{aligned}$$

\* diagonal divides a ||gm into 2  $\triangle$ s equal in area.