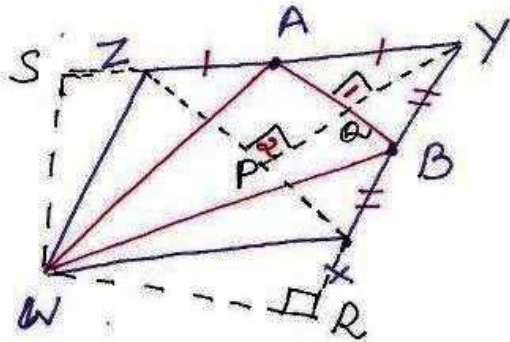


①



given - A, B are midpoints of sides YZ and XY resp. of $\parallel\text{gm } WXYZ$

to prove - $\text{ar}(\triangle WAB) = \frac{3}{8} \text{ar}(\parallel\text{gm } WXYZ)$

const. - join ZX, draw $YP \perp ZX$ intersecting AB at Q,
 draw $WR \perp YX$ (produced)
 draw $WS \perp YZ$ (produced)

proof AB joins midpoints of sides YZ and YX respectively

$$\therefore AB \parallel ZX$$

$$AB = \frac{1}{2} ZX$$

$$\text{or } ZX = 2(AB)$$

$$\angle 1 = \angle 2$$

[corresponding angles]

In $\triangle YZP$, A is midpoint of YZ and $AQ \parallel ZP$

$$\therefore YQ = QP$$

[converse of midpt. theorem]

$$\text{let } YQ = QP = c$$