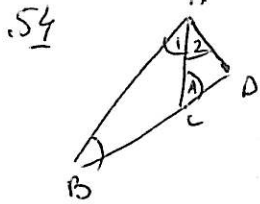


(S.S)  $\triangle AKB \sim \triangle ENB$  (S.S)  $\triangle KBC \sim \triangle NBD$

$$\frac{BK}{BN} = \frac{AK}{NE} \quad \frac{BK}{BN} = \frac{KC}{DN}$$

$$\frac{AK}{NE} = \frac{KC}{DN} \quad NE = DN \text{ (WS)}$$

$\triangle ABC$  - ?  $AC$  -  $\delta$   $BK \leftarrow AK = KC$



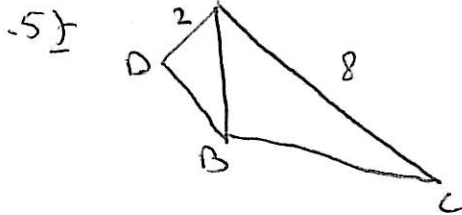
(S.S)  $\triangle ABC \sim \triangle AED$

$$\frac{S_{\triangle AED}}{S_{\triangle ABC}} = \left(\frac{AD}{AB}\right)^2 = \frac{3}{27} = \frac{1}{9} = \left(\frac{AD}{AB}\right)^2 \Rightarrow \frac{AD}{AB} = \frac{1}{3}$$

$$27 + 2AC = 21 + 3AC \Rightarrow AC = 6$$

$27 + 2AC = 21 + 3AC$

$AC = 6$

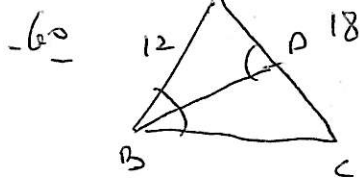


$\frac{AD}{AB} = \frac{AB}{8} \Rightarrow \frac{2}{AB} = \frac{AB}{8} \Rightarrow AB = 4$

$\frac{AC}{AB} = \frac{8}{4} = 2$  (WS)  $\frac{AC}{AB} = 2$

$x + 4x = 15 \Rightarrow x = S_{\triangle ADE} = 3$

$S_{\triangle ABC} = 4x \leftarrow S_{\triangle ADE} = x$



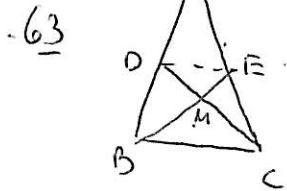
(S.S)  $\triangle ABD \sim \triangle ADE$

$2\frac{1}{4}$   $\frac{AC}{AB} = \frac{18}{12} = 1.5$

$S_{\triangle ABC} = 2\frac{1}{4} S_{\triangle ADE}$

$25 = S_{\triangle BDC} = S_{\triangle ABC} - S_{\triangle ABD} = 2\frac{1}{4} S_{\triangle ADE} - S_{\triangle ADE} = 1\frac{1}{4} S_{\triangle ADE}$

$S_{\triangle ADE} = 20$



$S_{\triangle ADC} = \frac{AD \cdot h}{2} = \frac{BD \cdot h}{2} = S_{\triangle BDC} \Rightarrow S_{\triangle BDC} = \frac{1}{2} S_{\triangle ABC} = 6$

$S_{\triangle ABE} = S_{\triangle AEC} = 6$

$\frac{1}{3}, \frac{2}{3}$   $\leftarrow$   $\frac{1}{3}, \frac{2}{3}$   $\leftarrow$   $\frac{1}{3}, \frac{2}{3}$

$\frac{DM}{ME} = \frac{BM}{MC} = \frac{1}{2} = \frac{ME}{BM}$

(S.S)  $\triangle DME \sim \triangle BMC$

$\frac{DM}{ME} = \frac{1}{2}$

$\frac{DM}{ME} = \frac{1}{2}$

$\frac{AD}{BA} = \frac{1}{2} = \frac{AE}{AC}$

$DE \parallel BC$  (הסבר)  $\leftarrow$   $DE \parallel BC$

$\Rightarrow \triangle ABC \sim \triangle ADE$  (S.S)

$\frac{AD}{AC} = \frac{1}{2}$

$S_{\triangle ADE} = \frac{1}{4} S_{\triangle ABC} = 3$

$S_{\triangle BMC} = S_{\triangle ABE} - S_{\triangle ADE} - S_{\triangle DME} = 6 - 3 - x = 3 - x$

$S_{\triangle MEC} = S_{\triangle ADC} - S_{\triangle DME} - S_{\triangle ADE} = 6 - x - 3 = 3 - x$

$S_{\triangle BMC} = 4x = S_{\triangle DME} = x \Rightarrow x = 3$

$S_{\triangle BEC} = S_{\triangle BMC} + S_{\triangle MEC} = 3 - x + 3 - x = 6 - 2x = 6 - 2(3) = 0$