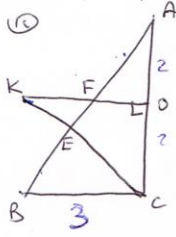


0.5
5



$\triangle ABC: AB=5$

(S.S) $\triangle AEC \sim \triangle ACB \Rightarrow EC^2 = BE \cdot AB$

$9 = BE \cdot 5$

$BE = 1.8$
 $AE = 3.2$

(S.S) $\triangle AEC \sim \triangle CEB \Rightarrow EC^2 = AE \cdot BE$
 $EC = 2.4$

(S.S) $\triangle KOC \sim \triangle AOC \Rightarrow \frac{KO}{AE} = \frac{OC}{EC} \rightarrow KO = \frac{2}{3}$

$S_{OK} = \frac{KO \cdot OC}{2} = \frac{2}{3}$

2

(A) $\delta N K \delta G \delta F$ (B) $\delta P N K$ F

$EF = AE - AF = 3.2 - 2.5 = 0.7$

3

$\frac{KO}{AE} = \frac{KC}{AC} \rightarrow KC = 3\frac{1}{3} \rightarrow KE = KC - EC = 3\frac{1}{3} - 2\frac{2}{5} = \frac{14}{15}$

$\triangle AKE: AK = \sqrt{KE^2 + AE^2} = \sqrt{\left(\frac{14}{15}\right)^2 + \left(3\frac{1}{5}\right)^2} = \sqrt{\frac{196}{225} + \frac{256}{25}} = \sqrt{\frac{100}{9}} = \frac{10}{3}$

$\triangle BKE: BK = \sqrt{BE^2 + KE^2} = \sqrt{\frac{196}{225} + \frac{81}{25}} = \frac{\sqrt{37}}{3}$