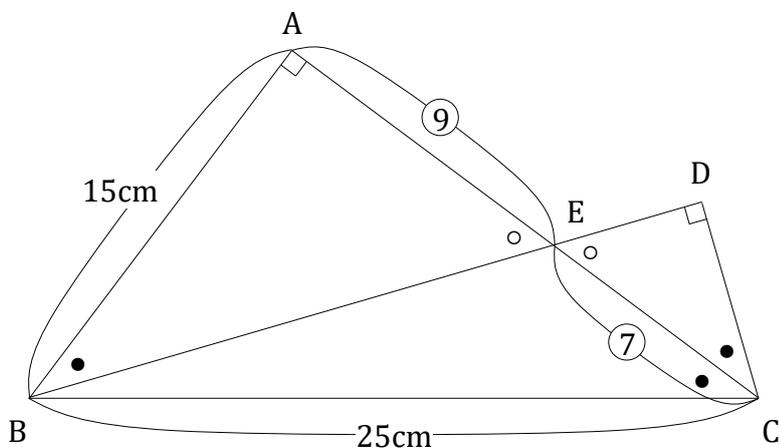




(1) 図は次のようになります。



(2) $\triangle ABC \sim \triangle AEB$ より、

$$BE = 15 \times \frac{5}{4} = \frac{75}{4} (\text{cm})$$

$$AE = 15 \times \frac{3}{4} = \frac{45}{4} (\text{cm})$$

$\triangle ABC \sim \triangle DEC$ より、

$$\begin{aligned} DE &= AE \times \frac{7}{9} \times \frac{3}{5} \\ &= \frac{45}{4} \times \frac{7}{9} \times \frac{3}{5} \\ &= \frac{21}{4} \end{aligned}$$

$$\begin{aligned} BD &= BE + DE \\ &= \frac{75}{4} + \frac{21}{4} \\ &= \frac{96}{4} \\ &= 24 (\text{cm}) \quad \dots (\text{答}) \end{aligned}$$