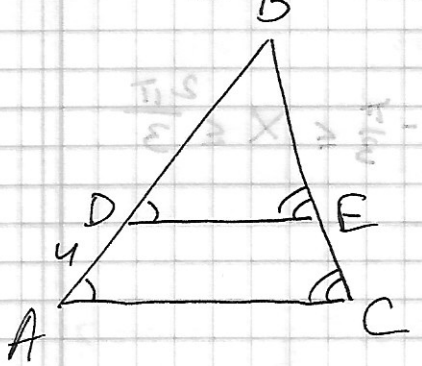

$$\frac{BE}{EC} = \frac{3}{2}$$

$$\Downarrow$$

$$\frac{EC}{EB} = \frac{2}{3}$$

$\triangle ABC \sim \triangle DBE \Leftarrow$ $\begin{cases} \angle A = \angle D \\ \angle C = \angle E \\ \angle B \text{ общий угол} \end{cases}$ ввиду $DE \parallel AC$

Из подобия треугольников имеем:

$$\frac{AB}{DB} = \frac{BC}{EB}$$

$$\frac{BC}{EB} = \frac{BE+EC}{EB} = 1 + \frac{EC}{EB} = 1 + \frac{2}{3} = \frac{5}{3}$$

$$\frac{5}{3} = \frac{AB}{DB} = \frac{AD+DB}{DB} = \frac{AD}{DB} + 1 = \frac{4}{DB} + 1$$

$$\boxed{DB = 6} \Rightarrow \boxed{AB = DB + AD = 6 + 4 = 10}$$