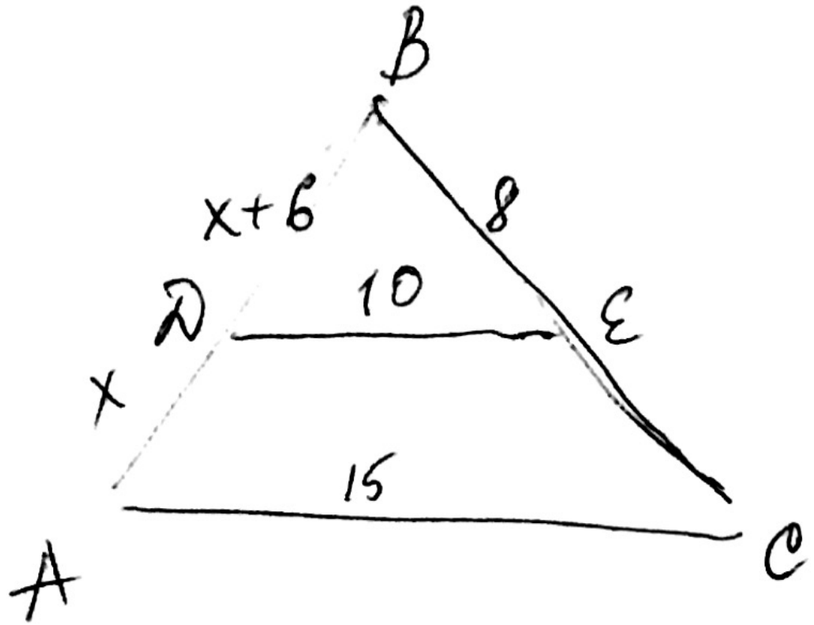

Т.к. $DE \parallel AC$, то $\angle BDE = \angle BAC$,
$\angle B$ - общий $\Rightarrow$
$\triangle DBE \sim \triangle ABC$ по 2 м углам $\Rightarrow$

$$\frac{x+6}{2x+6} = \frac{10}{15},$$

$$15x + 90 = 20x + 60$$

$$30 = 5x, \quad x = 6.$$

$$AB = 2x + 6 = 12 + 6 = 18.$$

Также из подобия: $\frac{BE}{BC} = \frac{10}{15}$

$$\frac{8}{BC} = \frac{10}{15}, \quad BC = \frac{8 \cdot 15}{10} = 12$$

$BC = 12$

Ответ: $AB = 18$, $BC = 12$.