

Дано:

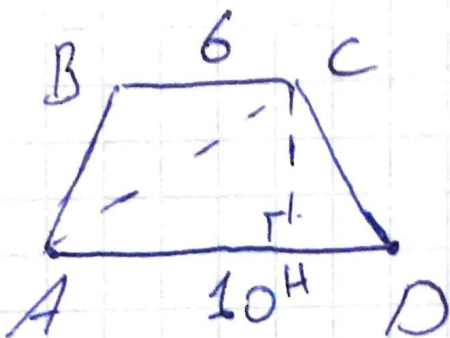
трап ABCD

$$AD = 10$$

$$BC = 6$$

$$S_{ABCD} = 72$$

Найти: S_{ABC}



Решение

$$\left. \begin{array}{l} 1) S_{ABCD} = 72 \text{ (усл)} \\ CH - \text{высота} \\ BC = 6 \text{ (усл)} \\ AD = 10 \text{ (усл)} \end{array} \right\} \Rightarrow CH = 72 : \frac{6+10}{2} = 72 : 8 = 9$$

$$\left. \begin{array}{l} 2) CH = 9 \text{ (по 1)} \\ \triangle ACD \\ AD = 10 \end{array} \right\} \Rightarrow S_{\triangle ACD} = \frac{1}{2} \cdot 10 \cdot 9 = 45$$

$$3) \left. \begin{array}{l} S_{ABCD} = 72 \text{ (по усл)} \\ S_{\triangle ACD} = 45 \text{ (по 2)} \end{array} \right\} \Rightarrow S_{\triangle ABC} = 72 - 45 = 27$$

Ответ: $S_{\triangle ABC} = 27$