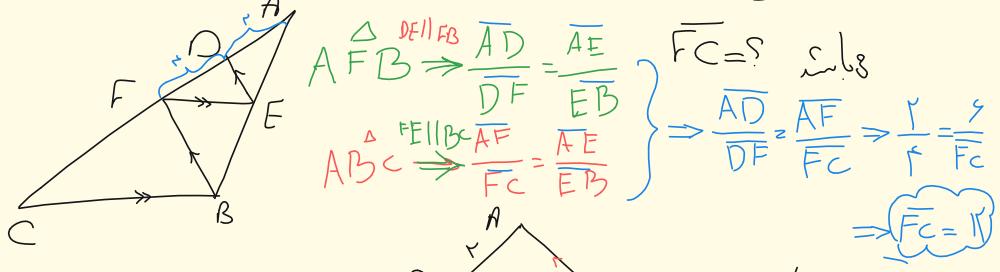


$EF \parallel BC$, $DE \parallel FB$, $FD = \xi$, $\overline{AD} = \gamma$ در مثلث زیر



Given: $EF \parallel BC$, $DE \parallel BC$, $AD = \gamma$, $EC = ?$

To find: $EC = ?$

Reasoning:

$$\frac{\overline{DE}}{\overline{BC}} = \frac{\overline{AE}}{\overline{AC}} = \frac{\overline{AD}}{\overline{AB}}$$

$$\frac{\overline{AD}}{\overline{AB}} = \frac{\overline{AE}}{\overline{AC}} = \frac{\gamma}{x}$$

$$\frac{\gamma}{x} = \frac{V}{V+EC} = \frac{10}{10+EC}$$

$$10 + EC = 100 \Rightarrow EC = 90$$

$$\frac{\overline{BD}}{\overline{DA}} = \frac{\overline{BF}}{\overline{EC}} \Rightarrow \frac{?}{?} = \frac{x}{10} \Rightarrow \frac{?}{?} = \frac{10}{x} = \gamma$$

Given: A rectangle with width $b+d$ and height a . It is divided into four quadrilaterals: blue (top-left), red (top-right), yellow (bottom-left), and grey (bottom-right).

Find: $\frac{d}{b+d} \times \frac{a}{b} + \frac{b}{b+d} \times \frac{a}{b} = \frac{a}{b}$

$$\frac{a}{b} \left(\frac{d+b}{b+d} \right) = \frac{a}{b}$$

Given: $\frac{v}{10} < \frac{10}{10} < \frac{10}{v}$, $\frac{v}{10} < \frac{10}{10} < \frac{10}{v}$, $\frac{v}{10} < \frac{10}{10} < \frac{10}{v}$

Find: $\sqrt{r} - \frac{m}{n} < 0.001$, $0 < \sqrt{r} - \frac{m}{n} < 0.001$, $-0.001 < -\frac{m}{n} < 0.001$

Solution:

$$\sqrt{r} - \frac{m}{n} = \frac{1000}{1000} \Rightarrow \sqrt{r} = 1.0000000000000002 \approx 1.0000000000000002$$

$$0 < \sqrt{r} - \frac{m}{n} < 0.001 \Rightarrow 0 < 1.0000000000000002 - \frac{m}{n} < 0.001 \Rightarrow -0.001 < -\frac{m}{n} < 0.001$$

$$\frac{123456789}{99999999} = 1.23456789$$

Given: $ED \parallel BC$, $EF \parallel AC$, $AE = \frac{1}{7}AB$, $ED = \frac{1}{7}BC$

To find: $\frac{\overline{ED}}{\overline{BC}} = ?$

Reasoning:

$$\frac{\overline{ED}}{\overline{BC}} = \frac{\overline{AE}}{\overline{AB}} = \frac{1}{7}$$

Given: $ED \parallel BC$, $EF \parallel AC$, $AE = \frac{1}{7}AB$, $ED = \frac{1}{7}BC$

To find: $\frac{\overline{ED}}{\overline{BC}} = ?$

Reasoning:

$$\frac{\overline{ED}}{\overline{BC}} = \frac{\overline{AE}}{\overline{AB}} = \frac{1}{7}$$

$$\frac{1}{7} \times \frac{1}{7} = \frac{1}{49}$$

$$\frac{1}{49} \times \frac{1}{7} = \frac{1}{343}$$

Given: $\triangle ABC$ with $BC = 1$, $\angle B = 60^\circ$

Given: $\triangle DEF$ with $DF = 1$, $\angle D = 60^\circ$

Conclusion: $\triangle ABC \sim \triangle DEF$