

$EF \perp AD$
 $AD = 24$
 $EF = 10$
 $AF = 16$
 $BE = 13$

$\frac{EF}{AF} = ?$
 $CD \perp AD \Rightarrow AC^2 = AD^2 + CD^2 \Rightarrow AC = \sqrt{24^2 + 10^2} = \sqrt{676} = 26$
 $AF = \frac{AC}{2} = \frac{26}{2} = 13$
 $(AE)^2 + (AD)^2 = BE^2 \Rightarrow BE = \sqrt{10^2 + 16^2} = \sqrt{340} = 13$
 $BE = FE = \frac{\sqrt{10}}{E} \times \dots$
 $BC \parallel AD \Rightarrow \angle BCF = \angle AFE$
 $\angle BFC = \angle AFE$
 $\Delta BFC \sim \Delta AFE$
 $\frac{BF}{AF} = \frac{CF}{FE} = \frac{BC}{AE}$
 $\frac{BF}{16} = \frac{CF}{10} = \frac{BC}{26}$
 $\frac{1}{16} = \frac{1}{10} = \frac{1}{26}$

$AD = 16$
 $DE = 10$
 $BE = 13$

$\Delta AED \sim \Delta ABC$
 $\frac{AD}{AB} = \frac{DE}{BC} = \frac{AE}{AC}$
 $\frac{16}{AB} = \frac{10}{BC} = \frac{AE}{AC}$
 $\frac{16}{13} = \frac{10}{18}$

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