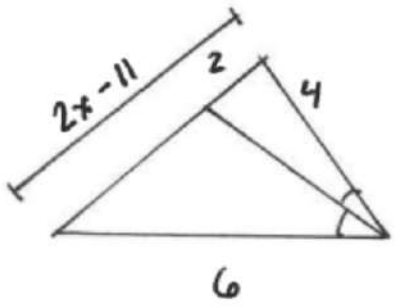
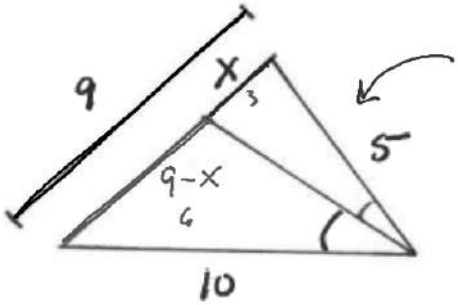




$\frac{9-x}{x} = \frac{10}{5}$

$5(9-x) = 10x$

$45 - 5x = 10x$

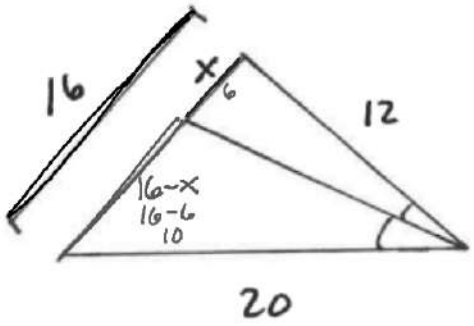
$45 = 15x$

$x = 3$

red + Blue = 9

red + x = 9

red = 9 - x



$\frac{16-x}{x} = \frac{20}{12}$

$12(16-x) = 20x$

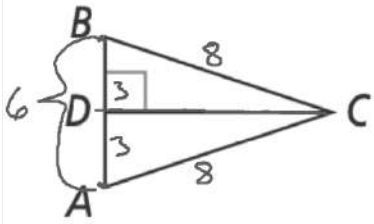
$192 - 12x = 20x$

$\frac{192}{32} = \frac{32x}{32}$

$x = 6$

$\frac{x}{16-x} = \frac{12}{20}$

$20x = 12(16-x)$



$P = AB + BC + AC$

$8 + 8 + 6$

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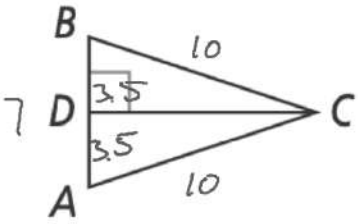
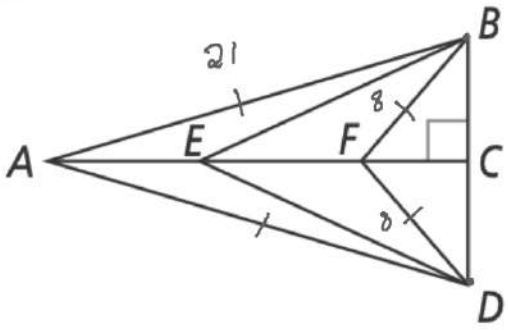
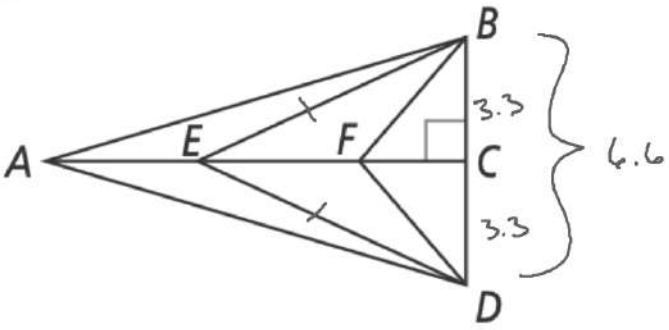
14. If $AD = 3$, $AC = 8$, and $BD = 3$, what is the perimeter of $\triangle ABC$?



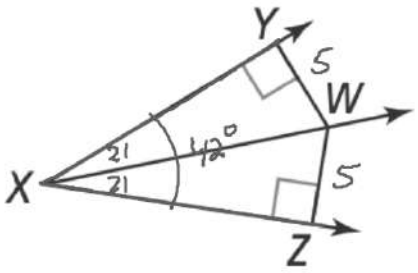
15. If $BC = 10$, $AB = 7$, and the perimeter of $\triangle ABC$ is 27, what is the value of BD?



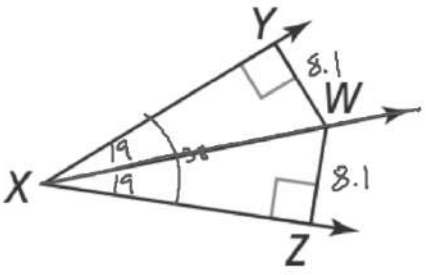
16. If $AD = 21$, $BF = 8$, and $DF = 8$, what is the value of AB?



17. If $EB = 6.2$, $CD = 3.3$, and $ED = 6.2$, what is the value of BD?



18. If $m\angle YXW = 21$, $YW = 5$, and $WZ = 5$, what is $m\angle ZXY$?



19. If $m\angle YXZ = 38$, $m\angle WXZ = 19$, and $WZ = 8.1$, what is the value of YW?

20. If $CD = 4$ and the perimeter of $\triangle ABC$ is 23, what is the perimeter of $\triangle ABE$?

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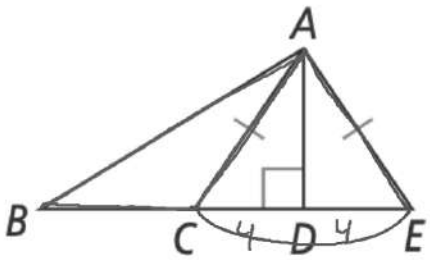
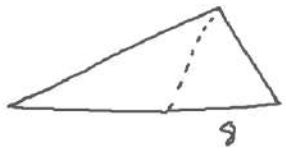
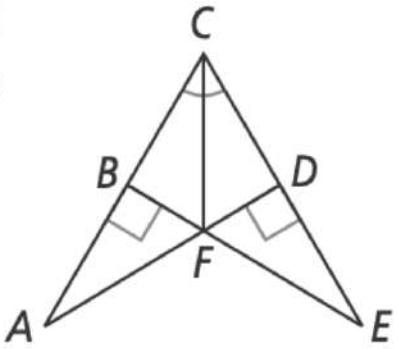




21. Given that $\angle ACF \cong \angle ECF$ and $m\angle ABF = m\angle EDF = 90$, write a two-column proof to show that $\triangle ABF \cong \triangle EDF$.



Smallest