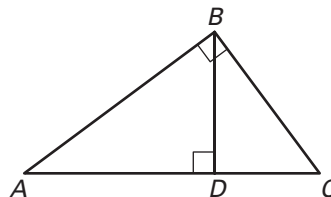


Practice C

For use with pages 527–534

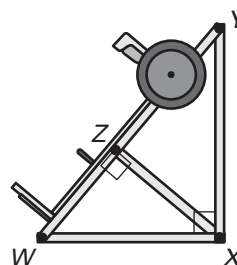
Use the diagrams at the right to find the indicated length.

- $AD = 16, DB = 12, DC = \underline{\hspace{1cm}} ?$
- $AB = 20, AD = 16, AC = \underline{\hspace{1cm}} ?$
- $AD = 16, DC = 2, BC = \underline{\hspace{1cm}} ?$
- $DC = 4, BC = 6, AC = \underline{\hspace{1cm}} ?$
- $AD = 25, DB = 10, DC = \underline{\hspace{1cm}} ?$
- $AD = 4, DC = 1, DB = \underline{\hspace{1cm}} ?$



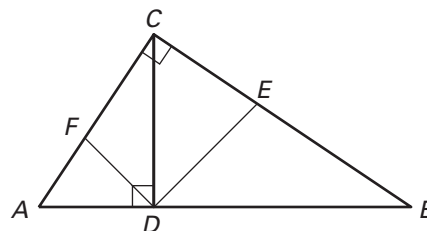
In Exercises 7–9, use the diagram of the squat machine where $ZY = 36$ in. and $ZW = 24$ in.

- Find the length of the vertical support bar, XY .
- Find the length of the base bar, WX .
- Find the length of the cross bar, XZ .



In Exercises 10–14, use the given information.

Given: $\triangle ABC$ is a right triangle with $m\angle C = 90^\circ$,
 $\overline{DC} \perp \overline{AB}$, \overline{FD} bisects $\angle ADC$, \overline{ED} bisects $\angle BDC$

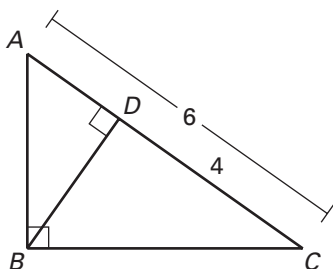


- Which angles are congruent?
- Which triangles are similar?
- True or False? $\frac{AD}{CD} = \frac{AC}{BC}$
- Is \overline{DF} an altitude of $\triangle ADC$?
- True or False? $\frac{CE}{CB} = \frac{CF}{CA}$

Write a two-column proof or a paragraph proof.

15. Given: $\triangle ABC$ with altitude \overline{BD} ,
 $m\angle ABC = 90^\circ$,
 $AC = 6, DC = 4$

Prove: $BC = 2\sqrt{6}$



16. Given: $\triangle JKL$ with altitude \overline{KM} ,
 $m\angle LKJ = 90^\circ$,
 $KM = 3, KJ = 5$

Prove: $JL = \frac{25}{4}$

