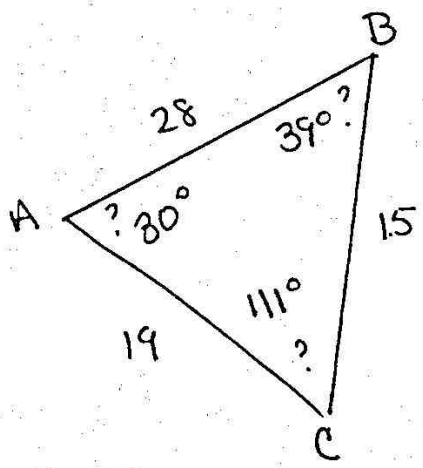
Section 8-7
Selected Answers

16.) $m\angle H \approx 31$
$m\angle G \approx 109$
$g \approx 14.7$

18.) $m\angle B \approx 86$
$m\angle C \approx 56$
$m\angle D \approx 38$

36.) BD = 31.2 feet (This is just the numerical answer, yours needs explanation!)

21.)



Law of Cosines

$a^2 = b^2 + c^2 - 2bc\cos A$

$15^2 = 19^2 + 28^2 - 2(19)(28)\cos A$

$225 = 1145 - 1064\cos A$

$-920 = -1064\cos A$

$\frac{920}{1064} = \cos A$

$\cos^{-1}\left(\frac{920}{1064}\right) = \cos^{-1}(\cos A)$

$30° = A$

$\frac{\sin A}{a} = \frac{\sin B}{b}$

$\frac{\sin 30°}{15} = \frac{\sin B}{19}$

$\frac{19\sin 30°}{15} = \sin B$

$\sin^{-1}\left(\frac{19\sin 30°}{15}\right) = \sin^{-1}(\sin B)$

$39° = B$

$m\angle A = 30$
$m\angle B = 39$
$m\angle C = 111$