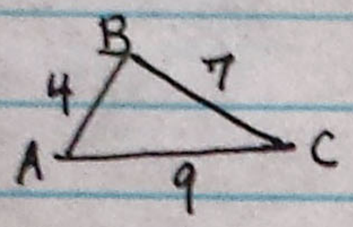
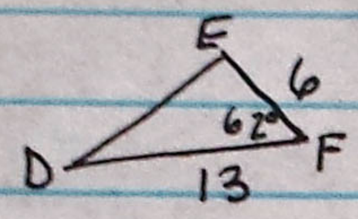
KEY

CHAPTER 8 TEST REVIEW (HW)

① 

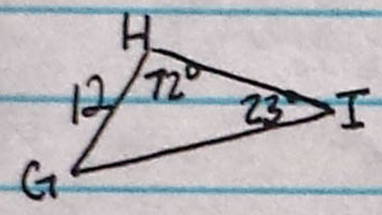
REASON: SSS

LAW of COSINES

② 

REASON: SAS

LAW of COSINES

③ 

REASON: AAS (or SAA)

LAW of SINES

④ $\sqrt{12 \cdot 5}$

$= \sqrt{60}$

$= 2\sqrt{15}$

60

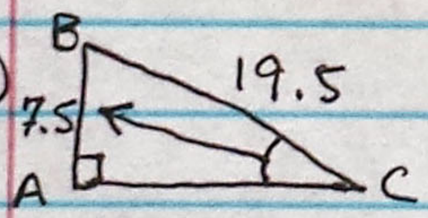
6 10

2 3 2 5

⑤ $\sin 50^\circ \approx 0.77$.

⑥ $\tan 34^\circ \approx 0.67$

⑦ $\cos^{-1}(0.36) \approx 68.9$

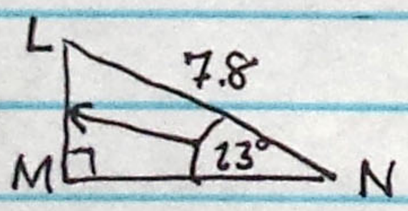
⑧ 

$\sin C = \frac{7.5}{19.5}$

$C = \sin^{-1}\left(\frac{7.5}{19.5}\right)$

$C \approx 22.62^\circ$

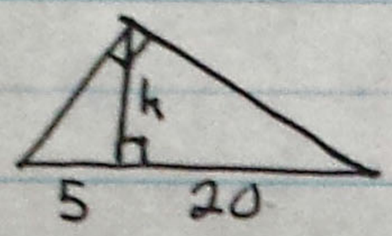
$C \approx 23^\circ$

⑨ 

$\sin 23 = \frac{LM}{7.8}$

$0.39 = \frac{LM}{7.8}$

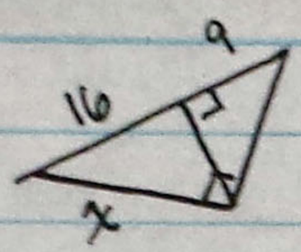
$LM \approx 3.05$

⑩ 

$h^2 = 5 \cdot 20$

$h^2 = 100$

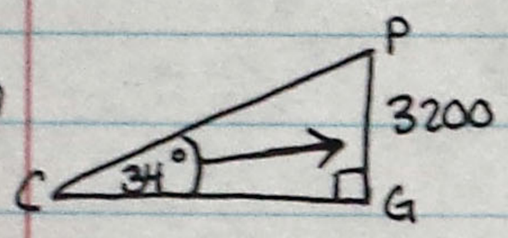
$h = 10$

⑪ 

$x^2 = 16 \cdot 25$

$x^2 = 400$

$x = 20$

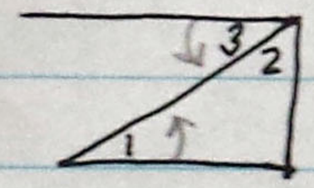
⑫ 

$\text{TAN } 34 = \frac{3200}{CG}$

$0.67 = \frac{3200}{CG}$

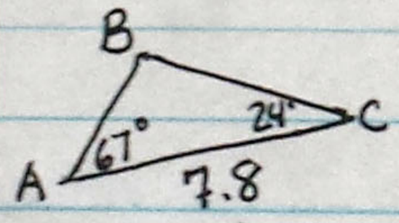
$CG \approx 4744.2 \text{ FEET}$

$CG \approx 4744 \text{ FEET}$

⑬ 

ANGLE of ELEVATION: $\angle 1$

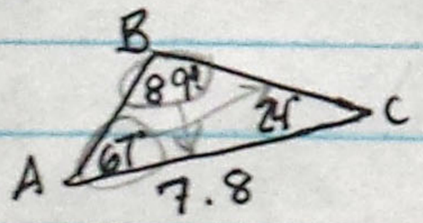
ANGLE of DEPRESSION: $\angle 3$

⑭ 

ASA → LAW of SINES

$67 + 24 + B = 180$

$B = 89°$

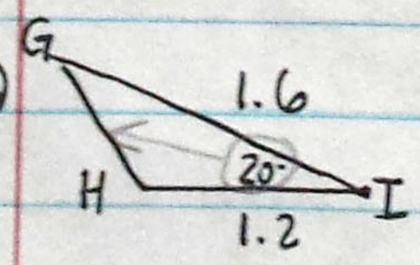


$\frac{\text{SIN } 89}{7.8} = \frac{\text{SIN } 67}{BC}$

$(BC)(\text{SIN } 89) = (7.8)(\text{SIN } 67)$

$BC = \left[\frac{(7.8)(\text{SIN } 67)}{\text{SIN } 89}\right]$

$BC \approx 7.18$

⑮ 

SAS → LAW of COSINES

$GH^2 = 1.2^2 + 1.6^2 - 2(1.2)(1.6)\cos 20$

$GH \approx 0.63$