

Geometry Study Guide & Review pgs 392-396 # 2-40 even

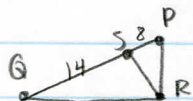
2. false ; opposite, adjacent

4. true

6. false ; $45^\circ-45^\circ-90^\circ$

8. $x = \sqrt{4(16)} = 8$

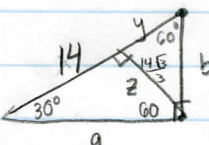
10. $x = \sqrt{20(35)} = \sqrt{700} = 10\sqrt{7}$

12.  $RS = \sqrt{8(4)} = 4\sqrt{2}$

14. $x = \sqrt{\left(\frac{13}{17}\right)^2 - \left(\frac{5}{17}\right)^2} = \frac{12}{17}$

16. $x = 9, y = 9\sqrt{2}$

18. $x = 12, y = 6\sqrt{3}$

20.  $a = \frac{28\sqrt{3}}{3}$
 $z = \frac{14\sqrt{3}}{3}$
 $b = \frac{28}{3}$
 $y = \frac{14}{3}$

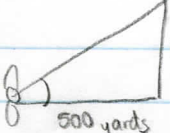
22. $\sin F = \frac{7}{25} = 0.28 = \cos G$
 $\cos F = \frac{24}{25} = 0.96 = \sin G$

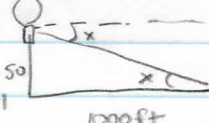
$\tan F = \frac{7}{24} \approx 0.29$

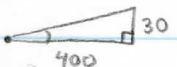
$\tan G = \frac{24}{7} \approx 3.43$

24. $\cos \theta = 0.1673$

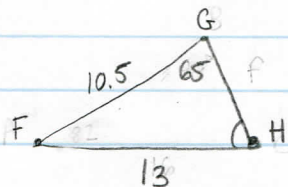
24

26.  $\tan x = \frac{60}{1500}$
 $x = \tan^{-1}\left(\frac{60}{1500}\right) \approx 2.3^\circ$

28.  $x = \tan^{-1}\left(\frac{50}{1000}\right) \approx 2.9^\circ$

30.  $x = \tan^{-1}\left(\frac{30}{400}\right) \approx 4.3^\circ$

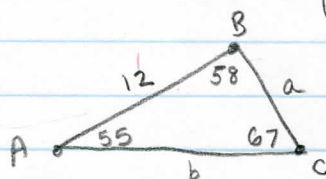
32.



$\frac{\sin 65}{13} = \frac{\sin m\angle H}{10.5}$

$m\angle H = \sin^{-1}\left(\frac{10.5 \sin 65}{13}\right) \approx 47^\circ$

34.



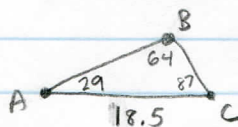
$m\angle B = 58^\circ$

$\frac{\sin 67}{12} = \frac{\sin 58}{b} = \frac{\sin 55}{a}$

$a = \frac{12 \sin 55}{\sin 67} \approx 10.7$

$b = \frac{12 \sin 58}{\sin 67} \approx 11.1$

36.



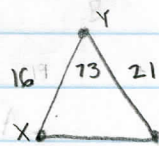
$m\angle C = 87^\circ$

$\frac{\sin 64}{18.5} = \frac{\sin 29}{a} = \frac{\sin 87}{c}$

$a = \frac{18.5 \sin 29}{\sin 64} \approx 10.0$

$b = \frac{18.5 \sin 87}{\sin 64} \approx 20.6$

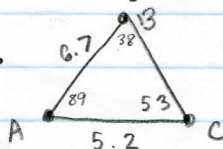
38.



$y = \sqrt{16^2 + 21^2 - 2(16)(21)\cos 73}$

$y \approx 22.4$

40.



$\frac{\sin 53}{6.7} = \frac{\sin m\angle B}{5.2}$

$m\angle B = 38^\circ, m\angle A = 89^\circ$

$a = \sqrt{6.7^2 + 5.2^2 - 2(6.7)(5.2)\cos 89} \approx 8.4$

$\frac{\sin 53}{6.7} = \frac{\sin 89}{a} \quad a \approx 8.4$