

Ps 223

MATH 113

Tues. 3-5-13

CLASS NOTES

⑧

$$a = 4.9$$

$$b = 3.2$$

$$C = 78.2$$

$$A = 65.4^\circ$$

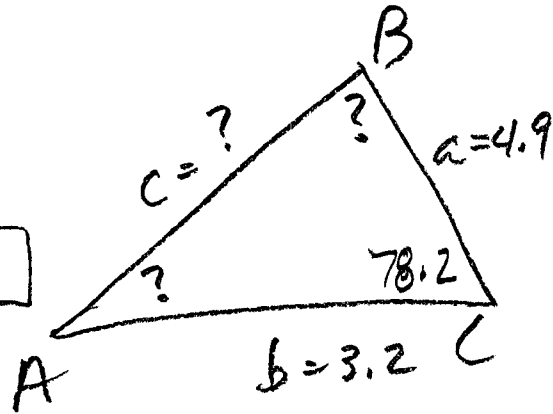
$$a = 4.9$$

$$B = 36.4^\circ$$

$$b = 3.2$$

$$C = 78.2^\circ$$

$$C = 5.3$$



$$c^2 = 3.2^2 + 4.9^2 - 2(3.2)(4.9)\cos 78.2$$

$$c^2 = 10.24 + 24.01 - 31.36(-.2044)$$

$$c^2 = 34.25 - 6.40998$$

$$c = 5.276$$

$$\frac{\sin 78.2}{5.276} = \frac{\sin A}{4.9}$$

$$\therefore \left( \frac{.97886}{5.276} \right) 4.9 = \sin A$$

$$A = \sin^{-1}(.9091)$$

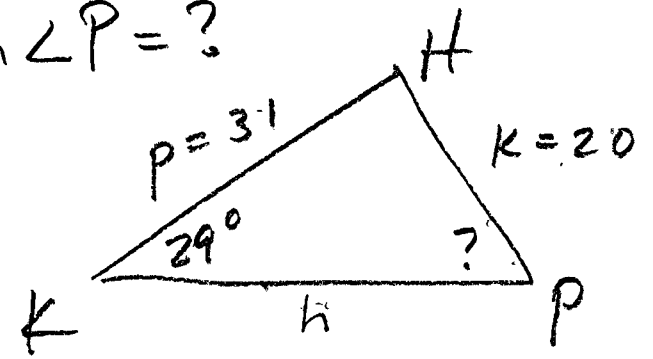
$$A = 65.38^\circ$$

$$\therefore B = 180 - (78.2 + 65.4) = 36.4^\circ$$

Worksheet Practice  
37

$\Delta KHP$   $m\angle K = 29^\circ$ ,  $p = 31$ ,  $k = 20$

$m\angle P = ?$



SSA  $\Rightarrow$   
LOC

$$20^2 = 31^2 + h^2 - 2(31)h(\cos 29^\circ)$$

$$400 = 961 + h^2 - 62h(.8746)$$

$$0 = 561 + h^2 - 54.226h$$

$$h^2 - 54.226h + 561 = 0$$

$$a = 1$$

$$b = -54.226$$

$$c = 561$$

$$b^2 - 4ac$$

$$(-54.226)^2 - 4(1)(561)$$

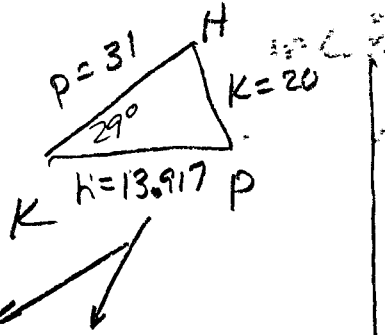
$$2940.50 - 2244$$

$$696.5 = d$$

$$h = \frac{-b \pm \sqrt{d}}{2a} = \frac{+54.226 \pm \sqrt{696.5}}{2}$$

$$h = 13.917, 40.309$$

31  
Cos



$$31^2 = 20^2 + 13.917^2 - 2(13.917)(20)\cos P$$

$$961 = 400 + 193.682 - 556.68 \cos P$$

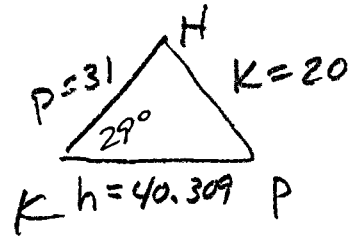
$$\frac{361.318}{-556.68} = \frac{-556.68 \cos P}{-556.68}$$

$$-.6598 = \cos P$$

$$P = \cos^{-1}(-.6598)$$

$$P = 48.713^\circ$$

$$P = 48.7^\circ$$



$$\therefore P = 180 - 48.7$$

$$P = 131.3^\circ$$