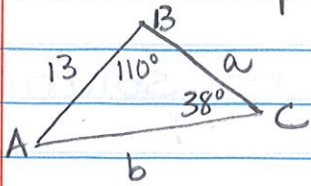


HW #24 p. 298

1.



$A = 32^\circ$  angles in  $\Delta$  add to  $180^\circ$

$$\frac{\sin 38^\circ}{13} = \frac{\sin 32^\circ}{a}$$

$$a \cdot .0474 = \frac{\sin 32^\circ}{a} \cdot a$$

$$\frac{.0474a}{.0474} = \frac{\sin 32^\circ}{.0474}$$

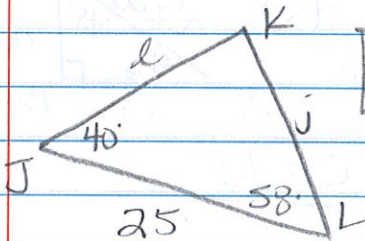
$a = 11.2$

b.  $\frac{\sin 38^\circ}{13} = \frac{\sin 110^\circ}{b} \cdot b$

$$\frac{.0474}{b} = \frac{\sin 110^\circ}{.0474}$$

$b = 19.8$

3.



$K = 82^\circ$

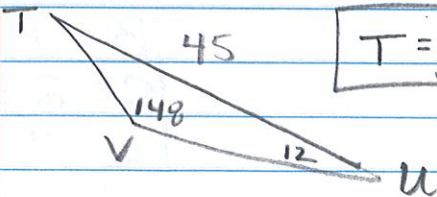
$j = 16.2$

$l = 21.4$

$$\frac{\sin 82^\circ}{25} = \frac{\sin 40^\circ}{j}$$

$$\frac{\sin 82^\circ}{25} = \frac{\sin 58^\circ}{l}$$

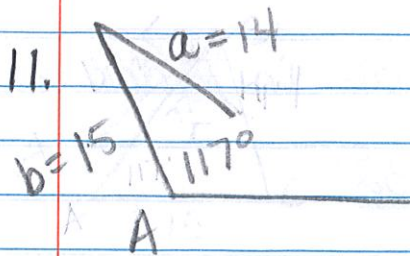
5.



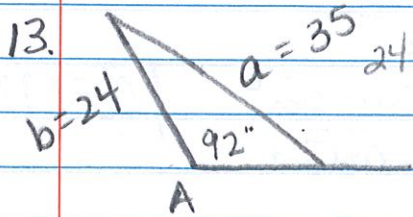
$T = 20^\circ$

$t = 29.0$

$u = 17.7$



$A$  obtuse  
 $a < b$  no solution



$$\frac{\sin 92^\circ}{35} = \frac{\sin B}{24} \cdot 24$$

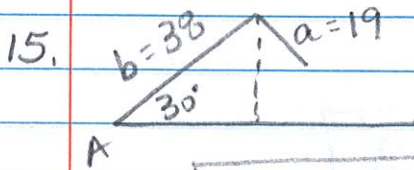
$$.685 = \sin B$$

$$\sin^{-1}.685 = B$$

$$B = 43^\circ$$

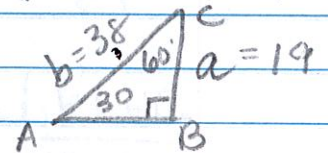
$$C = 45^\circ$$

$$c = 24.7$$

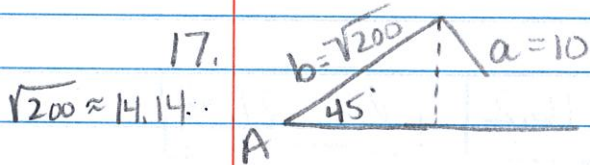


$$\rightarrow h = 38 \sin(30)$$

$$h = 19 \quad a = h$$

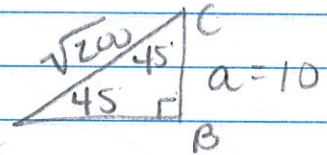


$$B = 90^\circ \quad C = 60^\circ \quad c = 32.9$$

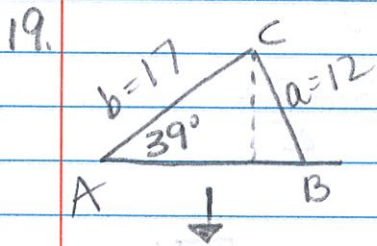


$$\rightarrow h = \sqrt{200} \sin 45^\circ$$

$$h = 10 \quad a = h$$

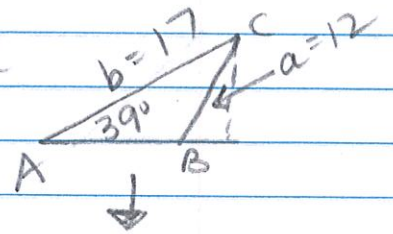


$$B = 90^\circ \quad C = 45^\circ \quad c = 10$$



$$h = 17 \sin 39^\circ \quad \text{OR}$$

$$h = 10.69 \quad a > h$$



$$B = 63^\circ$$

$$C = 78^\circ$$

$$B = 117^\circ$$

$$C = 24^\circ$$

$$c = 7.8$$

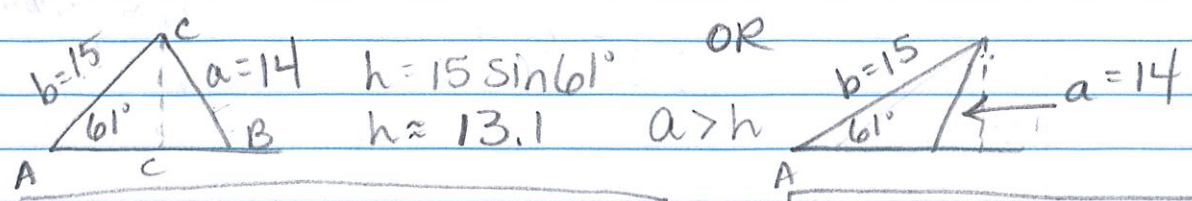
$$\frac{\sin 39^\circ}{12} = \frac{\sin 78^\circ}{c}$$

$$C = 18.7$$



HW #24 continued...

21.

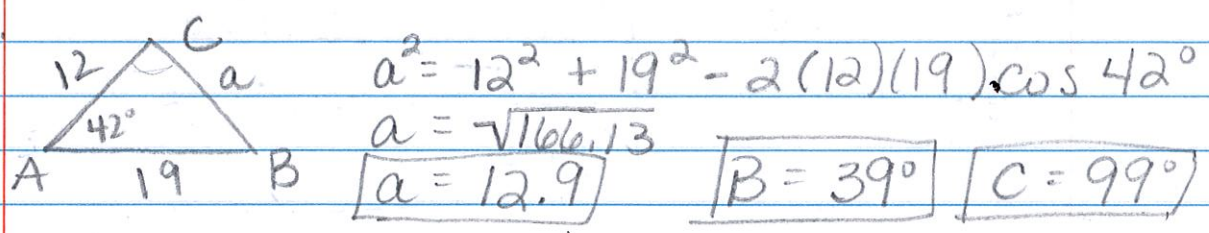


$B = 70^\circ \quad C = 49^\circ \quad c = 12.2$  OR  $B = 110^\circ \quad C = 9^\circ \quad c = 2.5$

23.

$B = 70^\circ \quad C = 56^\circ \quad c = 31.8$  OR  $B = 110^\circ \quad C = 16^\circ \quad c = 10.6$

27.

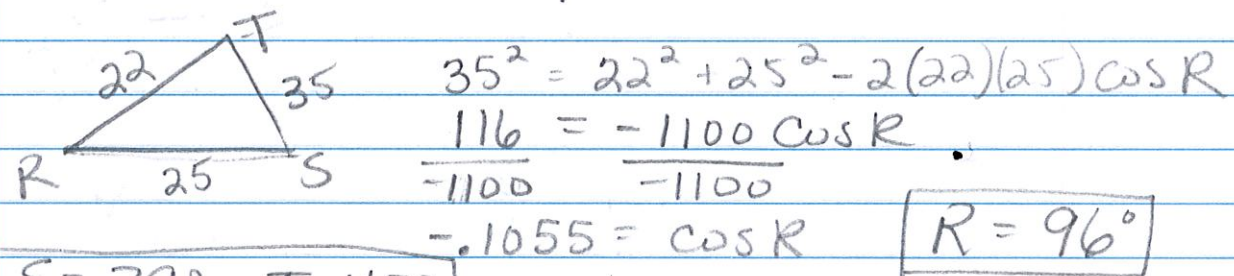


$a^2 = 12^2 + 19^2 - 2(12)(19)\cos 42^\circ$   
 $a = \sqrt{166.13}$   
 $a = 12.9$      $B = 39^\circ$      $C = 99^\circ$

29.

$Q = 27^\circ \quad R = 80^\circ \quad p = 14.6$

31.



$35^2 = 22^2 + 25^2 - 2(22)(25)\cos R$   
 $\frac{116}{-1100} = \frac{-1100}{-1100} \cos R$   
 $-.1055 = \cos R$      $R = 96^\circ$

$S = 39^\circ \quad T = 45^\circ$

S=39

33.

$C = 162^\circ \quad D = 2^\circ \quad b = 24.1$