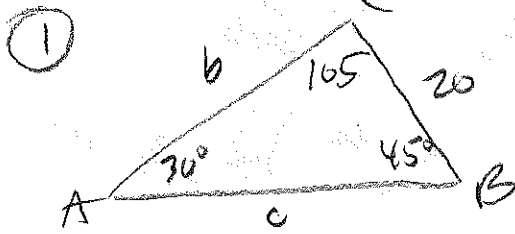


2436 # 1-7, 29, 30, 35

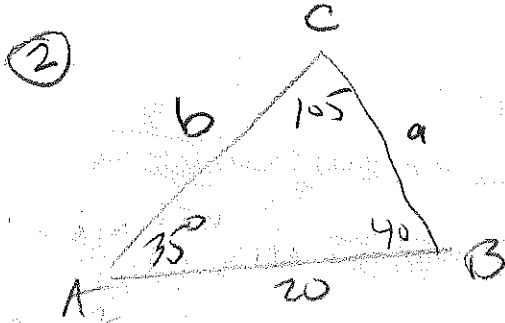
$$C = 180 - 30 - 45 = 105^\circ$$



$$\frac{20}{\sin 30} = \frac{b}{\sin 45} = \frac{c}{\sin 105}$$

$$b = \sin 45 \left(\frac{20}{\sin 30} \right) \approx 28.28$$

$$c = \sin 105 \left(\frac{20}{\sin 30} \right) \approx 38.64$$

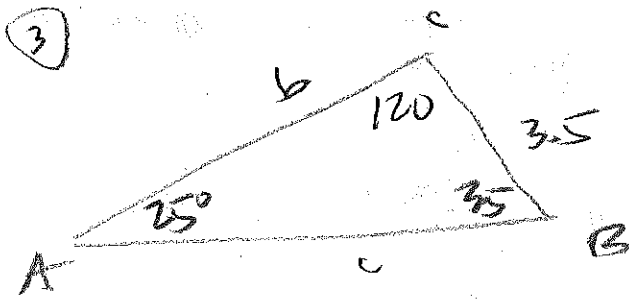


$$A = 35^\circ$$

$$\frac{a}{\sin 35} = \frac{b}{\sin 40} = \frac{20}{\sin 105}$$

$$a = \sin 35 \left(\frac{20}{\sin 105} \right) \approx 11.88$$

$$b = \sin 40 \left(\frac{20}{\sin 105} \right) \approx 13.3$$

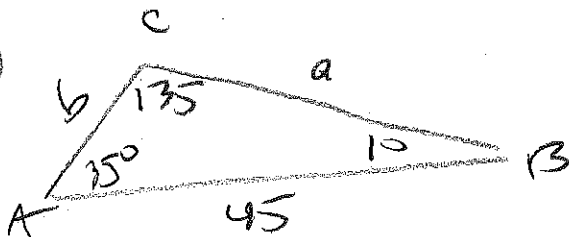


$$C = 120^\circ$$

$$\frac{3.5}{\sin 25} = \frac{b}{\sin 35} = \frac{c}{\sin 120}$$

$$b = \sin 35 \left(\frac{3.5}{\sin 25} \right) \approx 4.75$$

$$c = \sin 120 \left(\frac{3.5}{\sin 25} \right) \approx 7.17$$



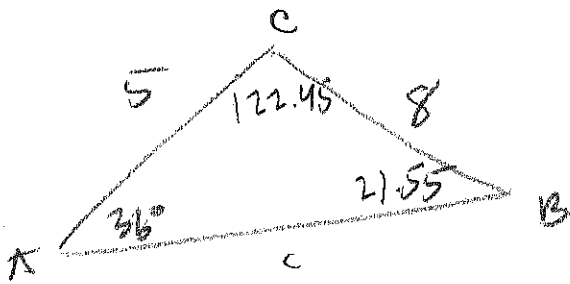
$$A = 35^\circ$$

$$\frac{a}{\sin 35} = \frac{b}{\sin 10} = \frac{45}{\sin 135}$$

$$a = \sin 35 \left(\frac{45}{\sin 135} \right) \approx 36.50$$

$$b = \sin 10 \left(\frac{45}{\sin 135} \right) \approx 11.05$$

⑤ $A = 36^\circ$, $a = 8$, $b = 5$



$$\frac{8}{\sin 36} = \frac{5}{\sin B}$$

$$\sin B = 5 \left(\frac{\sin 36}{8} \right) \approx .3674$$

$$\Rightarrow B \approx 21.55^\circ$$

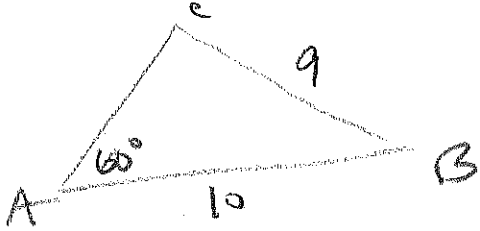
$$\Rightarrow C \approx 122.45^\circ$$

$$\frac{8}{\sin 36} = \frac{c}{\sin 122.45}$$

$$\Rightarrow c = \sin 122.45 \cdot \frac{8}{\sin 36}$$

$$\approx 11.49$$

⑥ $A = 60^\circ$, $a = 9$, $c = 10$



$$\frac{9}{\sin 60} = \frac{10}{\sin C}$$

$$\sin C = 10 \left(\frac{\sin 60}{9} \right) \approx .9623$$

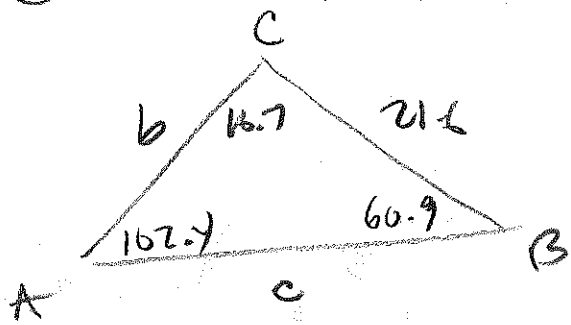
$$\Rightarrow C \approx 74.21^\circ$$

$$\Rightarrow B \approx 45.79^\circ$$

$$\frac{9}{\sin 60} = \frac{b}{\sin 45.79}$$

$$b = \sin 45.79 \left(\frac{9}{\sin 60} \right) \approx 7.45$$

⑦ $A = 102.4^\circ$, $C = 16.7^\circ$, $a = 21.6$



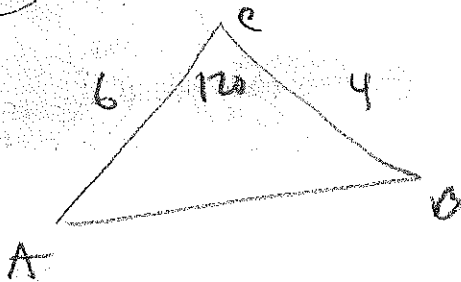
$$\frac{21.6}{\sin 102.4} = \frac{b}{\sin 60.9} = \frac{c}{\sin 16.7}$$

$B = 60.9$

$b = \sin 60.9 \left(\frac{21.6}{\sin 102.4} \right) \approx 19.32$

$c = \sin 16.7 \left(\frac{21.6}{\sin 102.4} \right) \approx 6.36$

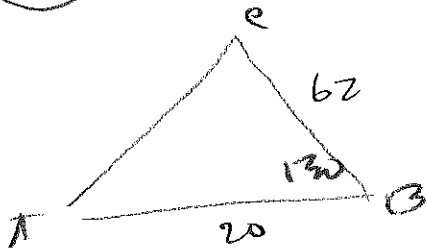
②⑨ $C = 120^\circ$, $a = 4$, $b = 6$



$$A = \frac{1}{2} b \cdot a \cdot \sin 120$$

$$\approx 10.39 \text{ u}^2$$

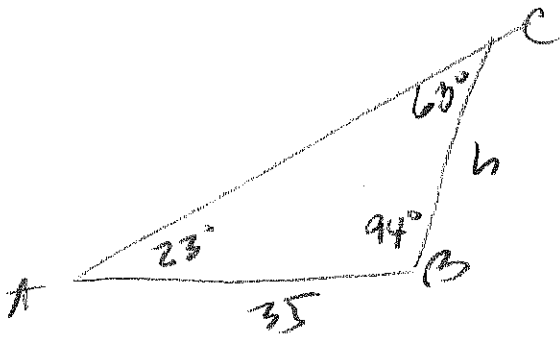
③⑩ $B = 130^\circ$, $a = 62$, $c = 20$



$$A = \frac{1}{2} (62)(20) \sin 130$$

$$\approx 474.95 \text{ u}^2$$

35



$$C = 180 - 94 - 23 = 63^\circ$$

$$\frac{h}{\sin 23^\circ} = \frac{35}{\sin 63^\circ}$$

$$h = \sin 23^\circ \left(\frac{35}{\sin 63^\circ} \right) \approx 15.35 \text{ m}$$