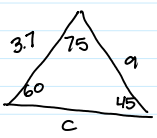


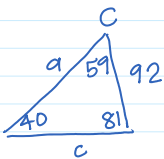
- ① $C = 75^\circ$
 $a = 4.53$
 $c = 5.05$
- ④ $C = 59^\circ$
 $a = 141.36$
 $c = 122.68$
- ⑤ $C = 110^\circ$
 $c = 18.79$
 $a = 12.86$
- ⑧ $A = 61^\circ$
 $a = 10.77$
 $b = 3.37$
- ③⑧ $a = 19.70 \text{ mi}$
 $b = 15.05 \text{ mi}$
 $h = 11.86 \text{ mi}$
- ④⑤ $a = 36.58 \text{ mi}$
 $b = 28.94 \text{ mi}$

Solutions

①  $\frac{\sin 45}{3.7} = \frac{\sin 60}{a}$
 $a \sin 45 = 3.7 \sin 60$
 $a = \frac{3.7 \sin 60}{\sin 45}$
 $a = 4.53$

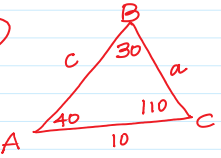
$\frac{\sin 45}{3.7} = \frac{\sin 75}{c}$
 $c \sin 45 = 3.7 \sin 75$
 $c = \frac{3.7 \sin 75}{\sin 45}$
 $c = 5.05$

$C = 75^\circ$

④  $\frac{\sin 40}{92} = \frac{\sin 81}{a}$
 $a \sin 40 = 92 \sin 81$
 $a = \frac{92 \sin 81}{\sin 40}$
 $a = 141.36$

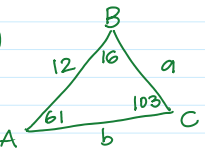
$\frac{\sin 40}{92} = \frac{\sin 59}{c}$
 $c = \frac{92 \sin 59}{\sin 40}$
 $c = 122.68$

$C = 59^\circ$

⑤  $\frac{\sin 30}{10} = \frac{\sin 110}{c}$
 $c = \frac{10 \sin 110}{\sin 30}$
 $c = 18.79$

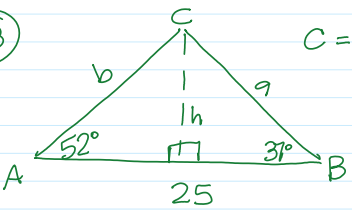
$\frac{\sin 30}{10} = \frac{\sin 40}{a}$
 $a = \frac{10 \sin 40}{\sin 30}$
 $a = 12.86$

$C = 110^\circ$

⑧  $\frac{\sin 103}{12} = \frac{\sin 61}{a}$
 $a = \frac{12 \sin 61}{\sin 103}$
 $a = 10.77$

$\frac{\sin 103}{12} = \frac{\sin 16}{b}$
 $b = \frac{12 \sin 16}{\sin 103}$
 $b = 3.39$

$A = 61^\circ$

③⑧  $C = 91^\circ$
 $\frac{\sin 91}{25} = \frac{\sin 37}{b}$
 $b = \frac{25 \sin 37}{\sin 91}$
 $b = 15.05 \text{ mi}$

$\frac{\sin 91}{25} = \frac{\sin 52}{a}$

$$\frac{\sin 91}{25} = \frac{\sin 52}{a}$$

$$a = \frac{25 \sin 52}{\sin 91}$$

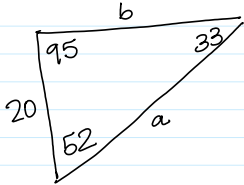
$$\boxed{a = 19.70 \text{ Mi}}$$

$$\frac{\sin 11}{b} = \frac{\sin 52}{15.05}$$

$$\sin 52 = \frac{h}{15.05}$$

$$\boxed{h = 11.86 \text{ Mi}}$$

(45)



$$\frac{\sin 95}{a} = \frac{\sin 33}{20}$$

$$a = \frac{20 \sin 95}{\sin 33}$$

$$\boxed{a = 36.58 \text{ Mi}}$$

$$\frac{\sin 33}{20} = \frac{\sin 52}{b}$$

$$b = \frac{20 \sin 52}{\sin 33}$$

$$\boxed{b = 28.94 \text{ Mi}}$$