

pg. 866) 12-17, 27, 28

⑫ $A = 48^\circ$
 $b \approx 25.5$
 $c \approx 18.7$

⑬ $A = 37.6^\circ$
 $B = 38.4^\circ$
 $a \approx 15.7$

⑭ $B = 66^\circ$
 $a \approx 14.3$
 $b \approx 24.0$

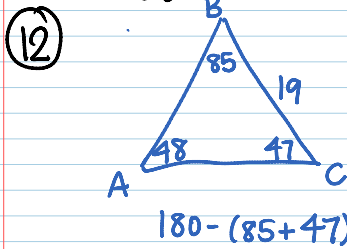
⑮ $B = 65^\circ$
 $a \approx 23.8$
 $b \approx 32.2$

⑯ $A \approx 80.9^\circ$
 $C \approx 43.1^\circ$
 $a \approx 20.2$

⑰ $C = 95^\circ$
 $a \approx 17.6$
 $b \approx 37.8$

⑳ $\frac{\sin c}{5} = \frac{\sin 55}{6}$ $\textcircled{28}$ B
 $6 \sin c = 5 \sin 55$
 $\sin c = \frac{5 \sin 55}{6}$
 $c = 43^\circ$

Solutions



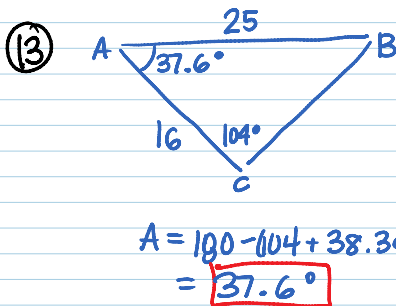
$$\frac{\sin 85}{b} = \frac{\sin 48}{19}$$

$$\frac{b \sin 48}{\sin 48} = \frac{19 \sin 85}{\sin 48}$$

$$\frac{\sin 48}{19} = \frac{\sin 47}{c}$$

$$\frac{c \sin 48}{\sin 48} = \frac{19 \sin 47}{\sin 48}$$

$$c \approx 18.7$$



$$\frac{\sin B}{16} = \frac{\sin 104}{25}$$

$$\frac{25 \sin B}{25} = \frac{16 \sin 104}{25}$$

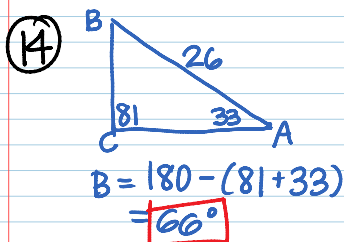
$$\sin B = .62$$

 $B = 38.39^\circ$

$$\frac{\sin 37.6}{a} = \frac{\sin 104}{25}$$

$$\frac{a \sin 104}{\sin 104} = \frac{25 \sin 37.6}{\sin 104}$$

$$a = 15.72$$



$$\frac{\sin 66}{b} = \frac{\sin 81}{26}$$

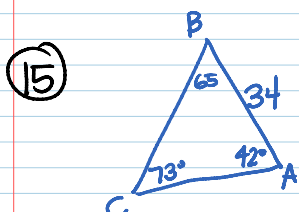
$$\frac{b \sin 81}{\sin 81} = \frac{26 \sin 66}{\sin 81}$$

$$b = 24.0$$

$$\frac{\sin 33}{a} = \frac{\sin 81}{26}$$

$$\frac{a \sin 81}{\sin 81} = \frac{26 \sin 33}{\sin 81}$$

$$a = 14.3$$



$$\frac{\sin 42}{a} = \frac{\sin 73}{34}$$

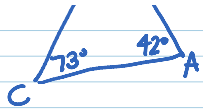
$$a \sin 73 = 34 \sin 42$$

$$a = 24 \sin 42$$

$$\frac{\sin 65}{b} = \frac{\sin 73}{34}$$

$$b \sin 73 = 34 \sin 65$$

$$b = 24 \sin 65$$



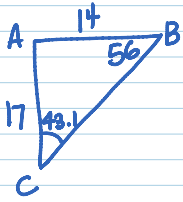
$$a \sin 73 = 34 \sin 42$$

$$a = \frac{34 \sin 42}{\sin 73} = \boxed{23.8}$$

$$b \sin 73 = 34 \sin 65$$

$$b = \frac{34 \sin 65}{\sin 73} = \boxed{32.2}$$

16



$$\frac{\sin 56}{17} = \frac{\sin C}{14}$$

$$17 \sin C = 14 \sin 56$$

$$\sin C = \frac{14 \sin 56}{17}$$

$$\sin C = .68$$

$$C = \sin^{-1}(.68)$$

$$C = \boxed{43.1}$$

$$A = 180 - (43.1 + 56)$$

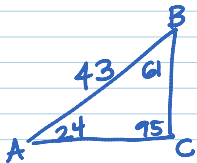
$$A = \boxed{80.9}$$

$$\frac{\sin 80.9}{a} = \frac{\sin 56}{17}$$

$$\frac{a \sin 56}{\sin 56} = \frac{17 \sin 80.9}{\sin 56}$$

$$a = \boxed{20.2}$$

17



$$C = 180 - (24 + 61)$$

$$= \boxed{95^\circ}$$

$$\frac{\sin 24}{a} = \frac{\sin 95}{43}$$

$$a = \frac{43 \sin 24}{\sin 95}$$

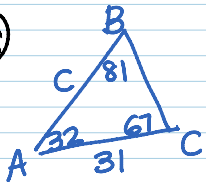
$$a = \boxed{17.6}$$

$$\frac{\sin 61}{b} = \frac{\sin 95}{43}$$

$$b = \frac{43 \sin 61}{\sin 95}$$

$$b = \boxed{37.8}$$

28



$$\frac{\sin 67}{c} = \frac{\sin 81}{31}$$

$$c = \frac{31 \sin 67}{\sin 81} = 28.9$$

\boxed{B}