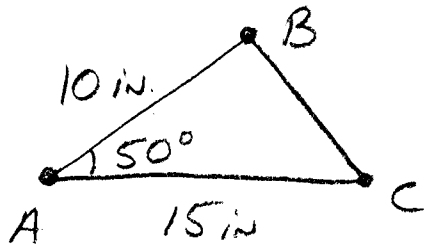


Alg. 2 - BE | Friday 1-13-12

① STATE (from memory) the formula for the area of any triangle that uses the SIN and the LAW of SINES.

• Homework Review Pg. 730 # 4-7

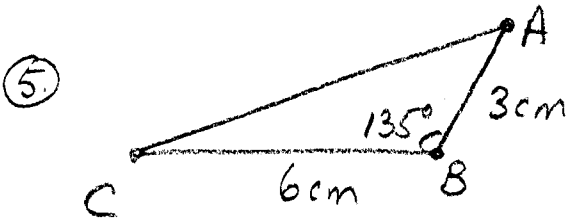
④ Area to nearest tenth:



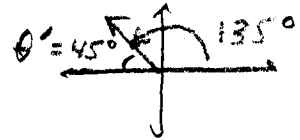
$$\sin 50^\circ = .7660$$

$$A = \frac{1}{2} (10)(15) \sin 50$$

$$= 75(.7660) \approx 57.45 \approx \boxed{57.5 \text{ in}^2}$$



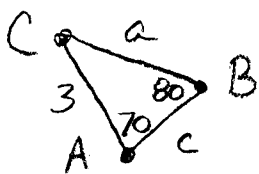
$$\sin 135 = \sin 45 = .7071$$



$$A = \frac{1}{2} (6)(3) \sin 135^\circ$$

$$= 9(.7071) \approx 6.36 \approx \boxed{6.4 \text{ cm}^2}$$

⑤ Solve to nearest tenth & degree



$$m\angle C = 180^\circ - 80^\circ - 70^\circ = \boxed{30^\circ = m\angle C}$$

$$\frac{\sin 80}{3} = \frac{\sin 70}{a} \quad \therefore a = \sin 70 \left(\frac{3}{\sin 80} \right)$$

$$a = .9397 \left(\frac{3}{.9848} \right)$$

$$\boxed{a \approx 2.9}$$

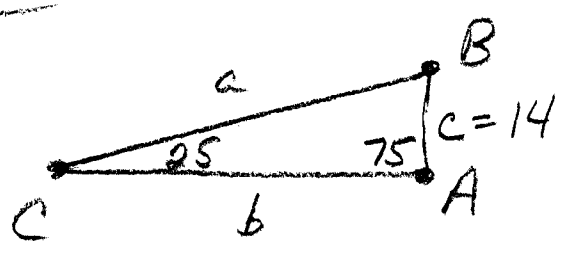
$$\frac{\sin 80}{3} = \frac{\sin 30}{c} \quad \therefore c = \sin 30 \left(\frac{3}{\sin 80} \right)$$

$$c = .5 \left(\frac{3}{.9848} \right)$$

$$\boxed{c \approx 1.5}$$

Pg 730

⑦



$$m\angle B = 180 - 100$$

$$\boxed{m\angle B = 80^\circ}$$

$$\frac{\sin 25^\circ}{14} = \frac{\sin 80^\circ}{b} \quad \therefore b = \sin 80^\circ \left(\frac{14}{\sin 25^\circ} \right)$$

$$b = .9848 \left(\frac{14}{.4226} \right)$$

$$\boxed{b = 32.6}$$

$$\frac{\sin 25^\circ}{14} = \frac{\sin 75^\circ}{a} \quad \therefore a = \sin 75^\circ \left(\frac{14}{\sin 25^\circ} \right)$$

$$a = .9659 \left(\frac{14}{.4226} \right)$$

$$\boxed{a \approx 32.0}$$