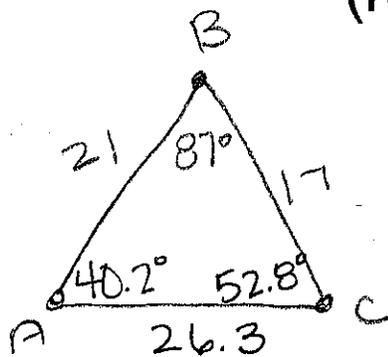


Warm-up: Solve triangle ABC given:

$$a = 17, c = 21, B = 87^\circ$$

(round to the tenth)



$$\textcircled{1} b^2 = a^2 + c^2 - 2ac \cos B$$

$$b = \sqrt{17^2 + 21^2 - 2(17)(21)\cos 87^\circ}$$

$$\boxed{b = 26.3}$$

$$\textcircled{2} a^2 = b^2 + c^2 - 2bc \cos A$$

$$17^2 = 26.3^2 + 21^2 - 2(26.3)(21)\cos A$$

$$-26.3^2 - 26.3^2 - 21$$

$$-21^2$$

$$-843.69 = -1104.6 \cos A$$

$$-843.69 = -\cos A$$

$$-1104.6$$

$$A = \cos^{-1} \left(\frac{843.69}{1104.6} \right)$$

$$\boxed{A = 40.2^\circ}$$

$$\textcircled{3} \begin{array}{r} 180 \\ - 87 \\ - 40.2 \end{array}$$

$$C = \boxed{52.8^\circ}$$