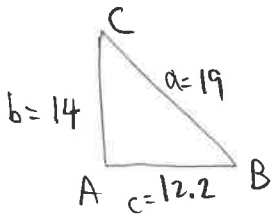


Ex 2 Calculate $\angle B$.



SSS. Find $\angle A$ first (largest angle)

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

$$19^2 = 14^2 + 12.2^2 - 2(14)(12.2) \cos A$$

$$361 = 344.84 - 341.6 \cos A$$

$$16.16 = -341.6 \cos A$$

$$\frac{\sin B}{b} = \frac{\sin A}{a}$$

$$\frac{\sin B}{14} = \frac{\sin 92.7114915}{19}$$

$$\sin B = 0.736017142$$

$$\boxed{B = 47.4^\circ}$$

$$\frac{16.16}{-341.6} = \cos A$$

$$-0.047306791 = \cos A$$

$$A = \cos^{-1}(-0.047306\dots)$$

$$A = 92.7114915^\circ$$

$$\boxed{A = 92.7^\circ}$$

$$C = 180 - 92.7 - 47.4$$

=

Ex 3 Hockey skills competition: within

SSS, find largest \angle first $\rightarrow B$

What angle must you shoot to get a goal?

$$b^2 = a^2 + c^2 - 2ac \cos B$$

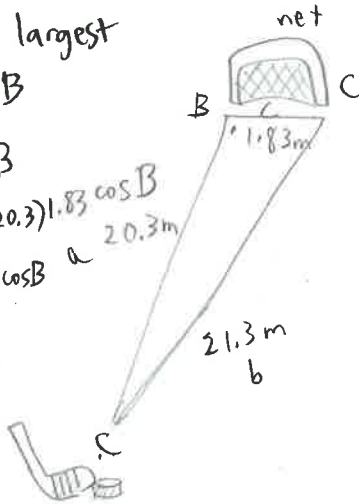
$$21.3^2 = 20.3^2 + 1.83^2 - 2(20.3)(1.83) \cos B$$

$$453.69 = 415.4389 - 74.298 \cos B$$

$$38.2511 = -74.298 \cos B$$

$$\cos B = -0.514833508$$

$$B = 120.986327^\circ$$



$$\frac{\sin B}{b} = \frac{\sin C}{c}$$

$$\frac{\sin 120.986}{21.3} = \frac{\sin C}{1.83}$$

$$\sin C = 0.073654508$$

$$\boxed{C = 4.2^\circ}$$

p 150 # 2abc, 3bdf, 6ace, 7adfg, 8eg
Quiz next day