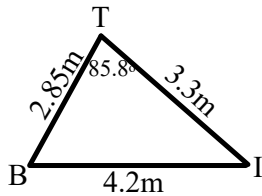


Brooklyn and Isaac are having a "friendly discussion" in Foundations class. Brooklyn is 4.2 m away from Isaac. Tyler speaks up and tells them to stop arguing. Tyler is 2.85 m away from Brooklyn and 3.3 m away from Isaac. Chloe notices that this would make a wonderful Sine Law question and, using her magical protractor, measures the angle located at Tyler to find that it is 85.8°. Derek says that he has solved the other two angles and that they are approximately 43° each. Mason shouts at Derek and tells him that he is wrong. Find out who is right and make any corrections needed.



$$\frac{\sin T}{t} = \frac{\sin I}{i}$$

$$\frac{\sin 85.8^\circ}{4.2\text{m}} = \frac{\sin I}{2.85\text{m}}$$

$$\frac{2.8423 \text{ m}}{4.2\text{m}} = \frac{\sin I \times 4.2\text{m}}{4.2\text{m}}$$

$$0.6767 = \sin I$$

$$\sin^{-1}(0.6767) = 42.59^\circ$$

$$\angle I = 42.59^\circ$$

*This means $\angle B$ would be:

$$180^\circ - 85.8^\circ - 42.59^\circ = 51.61^\circ$$

If you were to find $\angle B$ first instead you would get an angle for B of 51.59° instead.