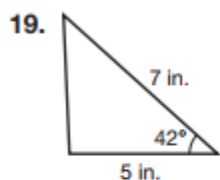


Law of Cosines

Name _____

Determine the unknown side length by using the Law of Cosines. Round your answers to the nearest tenth.



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

$$b^2 = 5^2 + 7^2 - 2(5)(7)\cos 42^\circ$$

$$b^2 = 25 + 49 - 70 \cos 42^\circ \approx 21.98$$

$$b = \sqrt{21.98}$$

$$b \approx 4.7 \text{ in.}$$

