11.2 Homework: Density & trigonometry situations
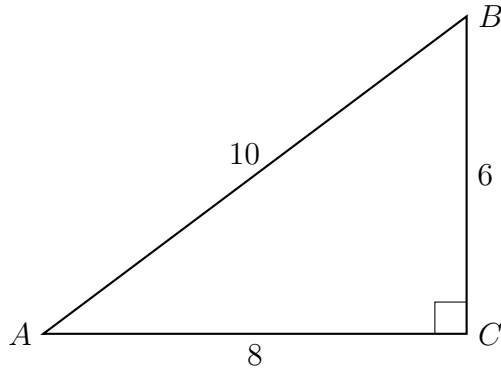
1. $\triangle ABC$ is shown with $m\angle C = 90°$ and the lengths of the triangle's sides are $BC = 6$, $AC = 8$, and $AB = 10$.

(a) State, as a decimal, the value of $\sin B$.

(b) Find the measure of $\angle B$, to the *nearest degree*.

(c) Find the degree measure of $\angle A$.

2. Express each trigonometric ratio to the *nearest thousandth* and each angle measure to the *nearest degree*.

   (a) $\sin 38° =$

   (b) $\cos^{-1} 0.866 =$

3. Bob places an 18-foot ladder 6 feet from the base of his house and leans it up against the side of his house. Find, to the nearest degree, the measure of the angle the bottom of the ladder makes with the ground.