BECA / Dr. Huson / Geometry 10th Grade
Unit 11: Algebra II introduction
7 May 2020

Name: Solutions

11.5 Problem set: Inverse trigonometry ratios

Identify each true statement

1. A right $\triangle ABC$ is shown with side lengths 6, 8, and 10, as marked.

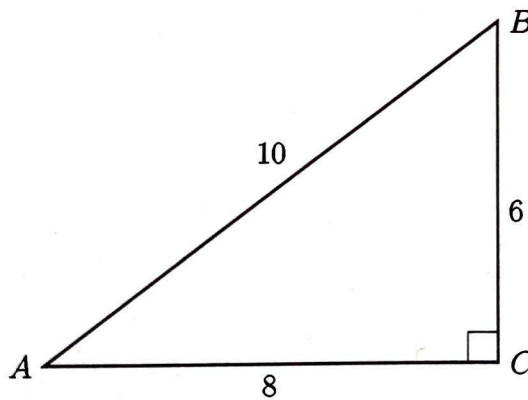☑ (a) $\tan A = \dfrac{BC}{AC}$

☐ (b) $\cos A = \dfrac{6}{10}$ ✗

☑ (c) $\sin B = 0.8$

☑ (d) $\tan A = 0.75$

☐ (e) $\cos B = \dfrac{AC}{BC}$ ✗

☐ (f) $\sin A > \cos A$ ✗

Finding trigonometric values using a calculator

2. Calculate and round to the *nearest thousandth*.

(a) $\sin 35° = 0.573576...$
≈ 0.574

(b) $7 \times \cos 48° = 4.683914...$
≈ 4.684

3. Find θ and round to the *nearest whole degree*.

(a) $\theta = \cos^{-1} 0.810 = 35.904...$
$\approx 36°$

(c) $\tan \theta = 0.153 = 8.698.796...$
$\approx 9°$

(b) $\theta = \sin^{-1}\left(\dfrac{3}{4}\right) = 48.5903...$
$\approx 49°$

(d) $\cos \theta = \left(\dfrac{1}{\sqrt{2}}\right) = 45°$