Alg 2B
Trig Mid-term
Review 2

Name:

Finding the Values of Basic Trigonometric Functions

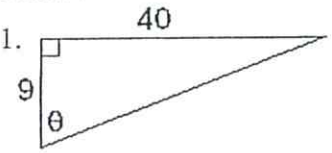
Here are the definitions for the basic trigonometric functions. Remember that "opposite" means the leg across from the angle of interest, "adjacent" means the leg that makes up one side of the angle of interest, and "hypotenuse" is the side of the triangle opposite the right angle.

$$\sin\vartheta = \frac{\text{opposite}}{\text{hypotenuse}} \qquad \cos\vartheta = \frac{\text{adjacent}}{\text{hypotenuse}} \qquad \tan\vartheta = \frac{\text{opposite}}{\text{adjacent}}$$

$$\csc\vartheta = \frac{1}{\sin\vartheta} = \frac{\text{hypotenuse}}{\text{opposite}} \qquad \sec\vartheta = \frac{1}{\cos\vartheta} = \frac{\text{hypotenuse}}{\text{adjacent}} \qquad \cot\vartheta = \frac{1}{\tan\vartheta} = \frac{\text{adjacent}}{\text{opposite}}$$

Use the formulas above and the Pythagorean Theorem to find the six trigonometric functions for the angles below.

1.

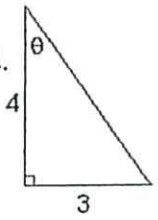


sin θ = _____ csc θ = _____

cos θ = _____ sec θ = _____

tan θ = _____ cot θ = _____

2.

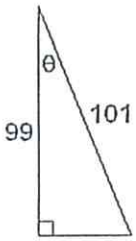


sin θ = _____ csc θ = _____

cos θ = _____ sec θ = _____

tan θ = _____ cot θ = _____

3.

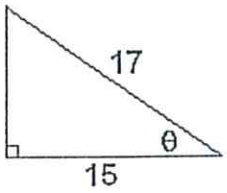


sin θ = _____ csc θ = _____

cos θ = _____ sec θ = _____

tan θ = _____ cot θ = _____

4.



sin θ = _____ csc θ = _____

cos θ = _____ sec θ = _____

tan θ = _____ cot θ = _____

For 5 & 6, use the given information to draw and label a triangle. Find the missing side using the Pythagorean Theorem. Then find the remaining 5 trig ratios.

5. $\tan\theta = \frac{12}{5}$

6. $\sec\theta = \frac{10}{6}$

sin θ = _____ csc θ = _____

cos θ = _____ sec θ = _____

tan θ = _____ cot θ = _____

sin θ = _____ csc θ = _____

cos θ = _____ sec θ = _____

tan θ = _____ cot θ = _____