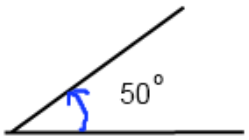
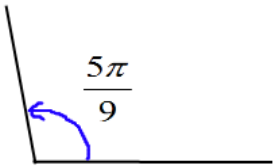
Trigonometry Review

1. Determine two coterminal angles in degree measure (one positive and one negative) for each angle:



2. Determine two coterminal angles in radian measure (one positive and one negative) for each angle:



3. Find the exact value of the following

$$\sin\frac{\pi}{3}$$

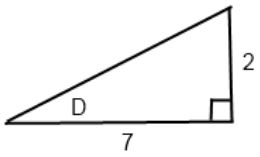
4. Find the exact value of the following

$$\sec\frac{3\pi}{4}$$

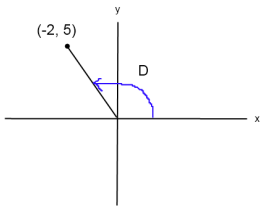
5. Find the exact value of the following

$$\cos\frac{13\pi}{4}$$

6. Find the exact value of the six trig functions of angle D



7. Determine all six trigonometric functions for the angle D



8. Determine the quadrant in which θ lies

a) sin θ > 0 and cos θ < 0

b) sec θ < 0 and tan θ < 0

9. Using x, y, and r formulas, find the following

$$\sin\theta = \frac{2}{7}, \theta \text{ in QII}$$

$$\tan\theta = \_\_\_\_$$

10. Using x, y, and r formulas, find the following

$$\cot\theta = 5, \sin\theta < 0$$

$$\sec\theta = \_\_\_\_$$

11. Use a calculator to evaluate each trigonometric function. Round your answers to four decimal places

$$\sin 20^\circ$$

12. Use a calculator to evaluate each trigonometric function. Round your answers to four decimal places

$$\cot 35^\circ$$

13. Use a calculator to evaluate each trigonometric function. Round your answers to four decimal places

$$\csc \frac{\pi}{5}$$

14. Solve the following equation ($0 \leq \theta < 2\pi$)

$$\sin\theta = \frac{-\sqrt{2}}{2}$$

15. Solve the following equation ($0 \leq \theta < 2\pi$)

$$2\cos\theta + 1 = 0$$

16. Solve the following equation ($0 \leq \theta < 2\pi$)

$$\tan\theta = -1$$

17. Solve the following equation ($0 \leq \theta < 2\pi$)

$$\cot\theta = \frac{\sqrt{3}}{3}$$

18. Solve the following equation ($0 \leq \theta < 2\pi$)

$$2\cos^2\theta = 1$$

19. Solve the following equation ($0 \leq \theta < 2\pi$)

$$2\sin^2\theta - \sin\theta - 1 = 0$$

20. Solve the following equation ($0 \leq \theta < 2\pi$)

$$\cos\theta = \sec\theta$$

21. Solve the following equation ($0 \leq \theta < 2\pi$)

$$\cos(2\theta) = \frac{\sqrt{2}}{2}$$

22. Solve the following equation ($0 \leq \theta < 2\pi$)

$$\cos\theta = \frac{1}{8}$$