Name: _____

Instructor: _____

Date: _____

1. Print this quiz.

2. Correctly and completely fill out the unit circle and the table.

3. Plot the sets of ordered pairs and graph the function $Sin(\theta)$ on desmos.com, then print out and attach to this quiz

    a. Plot the ordered pairs (θ, y) where θ is in radians on desmos.com
        i. Do this for all special values of θ from your unit circle and then repeat this for all the negative values of θ too.
    b. Graph the function $Sin(x)$ over your plotted points, be sure your graph axes are labeled and your graph is in radians. This graph should lie on top of your plotted points.
    c. Print out this graph and attach it to this quiz

4. Plot the sets of ordered pairs and graph the function $Cos(\theta)$ on desmos.com, then print out and attach to this quiz

    a. Plot the ordered pairs (θ, x) where θ is in radians on desmos.com
        i. Do this for all special values of θ from your unit circle and then repeat this for all the negative values of θ too.
    b. Graph the function $Cos(x)$ over your plotted points, be sure your graph axes are labeled and your graph is in radians. This graph should lie on top of your plotted points.
    c. Print out this graph and attach it to this quiz

5. Turn in completed quiz at the beginning of class on 2/18. This quiz should be stapled together neatly before you enter class.

You will be graded on your ability to correctly and neatly follow the directions and honor the spirit of the quiz.

$$[0,\pi] \quad \left[-\tfrac{\pi}{2},\tfrac{\pi}{2}\right] \quad \left(-\tfrac{\pi}{2},\tfrac{\pi}{2}\right) \quad [0,\pi] \quad \left[-\tfrac{\pi}{2},\tfrac{\pi}{2}\right] \quad (0,\pi)$$

Radians	Degrees	$\cos\theta$	$\sin\theta$	$\tan\theta$	$\sec\theta$	$\csc\theta$	$\cot\theta$
$-\tfrac{\pi}{2}$							
0							
$\tfrac{\pi}{2}$							
π							
$\tfrac{3\pi}{2}$							
2π							

Pythagorean Identities:

$$\sin^2\theta + \cos^2\theta = 1$$
$$1 + \tan^2\theta = \sec^2\theta$$
$$1 + \cot^2\theta = \csc^2\theta$$

Sum/Difference Identities:

$$\cos(A+B) =$$
$$\cos(A-B) =$$
$$\sin(A+B) =$$
$$\sin(A-B) =$$
$$\tan(A+B) =$$
$$\tan(A-B) =$$

Double Angle:

$$\sin(2\theta) =$$
$$\cos(2\theta) =$$
$$=$$
$$=$$
$$\tan(2\theta) =$$

Power Reducing Identities:

$$\cos^2 x = \tfrac{1}{2}\left(1 + \cos(2x)\right)$$
$$\sin^2 x = \tfrac{1}{2}\left(1 - \cos(2x)\right)$$

Half Angle Identities:

$$\cos\left(\tfrac{\theta}{2}\right) =$$
$$\sin\left(\tfrac{\theta}{2}\right) =$$
$$\tan\left(\tfrac{\theta}{2}\right) =$$

Polar/Rectangular:

$$x = r\cos\theta$$
$$y = r\sin\theta$$
$$\tan\theta = \tfrac{y}{x}$$
$$x^2 + y^2 = r^2$$