

**The Sine and Cosine Functions** – in book: Section 4.5 p. 247

**Find the exact values of each trigonometric function.**

1)  $\sin \frac{11\pi}{4}$

2)  $\cos \frac{-8\pi}{3}$

3)  $\sin \frac{25\pi}{6}$

4)  $\cos -585^\circ$

5)  $\sin 9900^\circ$

6)  $\cos 405^\circ$

7) Complete the following table.

	$f(\theta) = \sin \theta$	$g(\theta) = \cos \theta$
<b>Domain</b>		
<b>Range</b>		
<b>Zeros</b>		
<b>Period</b>		
<b>Even, odd, neither</b>		

8) For what values of  $x$  between 0 and  $-2\pi$  are both  $\cos x$  and  $\sin x$  negative?

9) One solution to the equation  $\sin \theta = 0.564$  is  $\theta \approx 0.599$ . Find the other two solutions closest to this value of  $\theta$ .

**For Questions 10 through 15, determine whether the characteristic applies to the sine function, cosine function, both, or neither.**

10) symmetry with respect to the origin

11) symmetry with respect to the  $x$ -axis

12) symmetry with respect to the  $y$ -axis

13) horizontal asymptotes

14)  $x$ -intercepts at integer multiples of  $\pi$

15)  $y$ -intercept of -1

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