

**Graphs of the Basic 6 Trigonometric Functions**

1. Function:	Sine	
Equation:		
Domain:		
Range:		
Period:		
Odd/Even?		
Symmetry?		

2. Function:	Cosine	
Equation:		
Domain:		
Range:		
Period:		
Odd/Even?		
Symmetry?		

3. Function:	Tangent	
Equation:		
Domain:		
Range:		
Period:		
Odd/Even?		
Symmetry?		

4. Function:	Cosecant	
Equation:		
Domain:		
Range:		
Period:		
Odd/Even?		
Symmetry?		

5. Function:	Secant	
Equation:		
Domain:		
Range:		
Period:		
Odd/Even?		
Symmetry?		

6. Function:	Cotangent	
Equation:		
Domain:		
Range:		
Period:		
Odd/Even?		
Symmetry?		

For each of the following state the period and domain (set notation):

1)  $g(x) = 3 \csc(2x)$

2)  $f(x) = -\frac{1}{5} \sec 3x$

3)  $h(x) = 4 \tan(2x)$

4)  $q(x) = \cot \frac{\pi}{2} x$

5)  $r(x) = -\frac{1}{2} \tan \frac{x}{3}$

Answers:

1) Period =  $\pi$ ; Domain:  $\{x \mid x \neq \frac{\pi}{2}n, n \in Z\}$

2) Period =  $\frac{2\pi}{3}$ ; Domain:  $\{x \mid x \neq \frac{\pi}{6} + \frac{\pi}{3}n, n \in Z\}$

3) Period =  $\frac{\pi}{2}$ ; Domain:  $\{x \mid x \neq \frac{\pi}{4} + \frac{\pi}{2}n, n \in Z\}$

4) Period = 2; Domain:  $\{x \mid x \neq 2n, n \in Z\}$

5) Period =  $3\pi$ ; Domain:  $\{x \mid x \neq \frac{3\pi}{2} + 3\pi n, n \in Z\}$