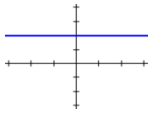
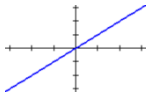
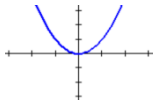
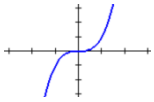
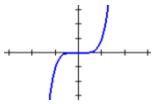
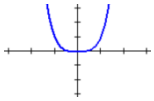
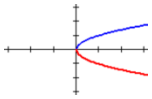
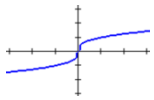
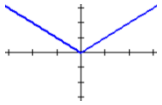
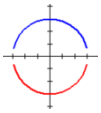
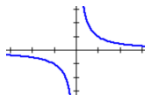
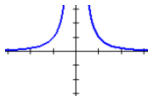
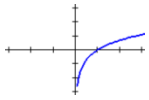
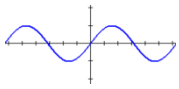
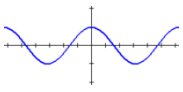
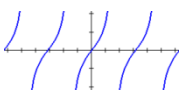
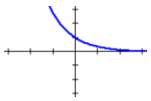
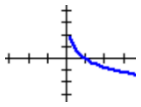
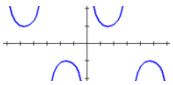
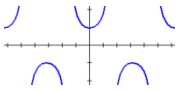
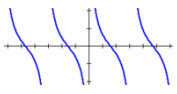
CATALOG OF CURVES

FAMILY	FUNCTION	
Constant	$f(x) = a$	
Linear	$f(x) = x$	
Quadratic	$f(x) = x^2$	
Cubic	$f(x) = x^3$	
Power *n* odd	$f(x) = x^n$	
Power *n* even	$f(x) = x^n$	

FAMILY	FUNCTION	
Square Root	$f(x) = \pm\sqrt{x}$	
Cube Root	$f(x) = \sqrt[3]{x}$	
Absolute Value	$f(x) = \lvert x \rvert$	
Circle	$f(x) = \pm\sqrt{a^2 - x^2}$	
Rational *n* odd	$f(x) = \frac{1}{x^n}$	
Rational *n* even	$f(x) = \frac{1}{x^n}$	

Exponential	$f(x) = e^x$	
Natural Log	$f(x) = \ln x$	
Sine	$f(x) = \sin x$	
Cosine	$f(x) = \cos x$	
Tangent	$f(x) = \tan x$	

Exponential	$f(x) = e^{-x}$	
Natural Log	$f(x) = -\ln x$	
Cosecant	$f(x) = \csc x$	
Secant	$f(x) = \sec x$	
Cotangent	$f(x) = \cot x$	

TRIGONOMETRIC IDENTITIES

Reciprocal Identities

$$\sin\theta = \frac{1}{\csc\theta} \qquad \cos\theta = \frac{1}{\sec\theta} \qquad \tan\theta = \frac{1}{\cot\theta}$$

$$\csc\theta = \frac{1}{\sin\theta} \qquad \sec\theta = \frac{1}{\cos\theta} \qquad \cot\theta = \frac{1}{\tan\theta}$$

Quotient Identities

$$\tan\theta = \frac{\sin\theta}{\cos\theta}$$

$$\cot\theta = \frac{\cos\theta}{\sin\theta}$$

Even/Odd Identities

$$\sin(-\theta) = -\sin\theta \qquad \csc(-\theta) = -\csc\theta$$

$$\cos(-\theta) = \cos\theta \qquad \sec(-\theta) = \sec\theta$$

$$\tan(-\theta) = -\tan\theta \qquad \cot(-\theta) = -\cot\theta$$

Cofunction Identities

$$\sin\left(\frac{\pi}{2} - \theta\right) = \cos\theta \qquad \csc\left(\frac{\pi}{2} - \theta\right) = \sec\theta$$

$$\cos\left(\frac{\pi}{2} - \theta\right) = \sin\theta \qquad \sec\left(\frac{\pi}{2} - \theta\right) = \csc\theta$$

$$\tan\left(\frac{\pi}{2} - \theta\right) = \cot\theta \qquad \cot\left(\frac{\pi}{2} - \theta\right) = \tan\theta$$

Pythagorean Identities

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

$$1 + \tan^2\theta = \sec^2\theta$$

$$1 + \cot^2\theta = \csc^2\theta$$

UNIT CIRCLE