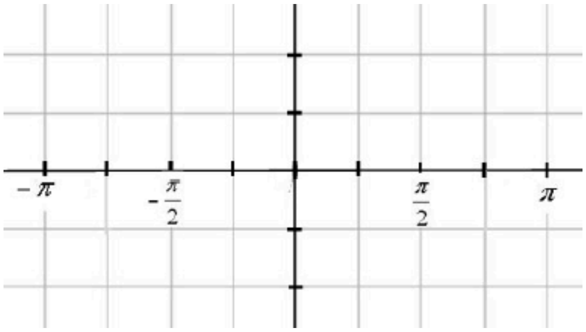
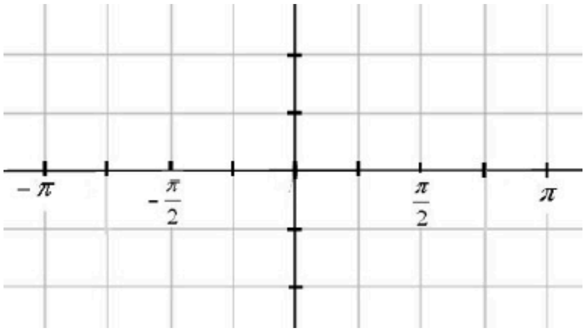
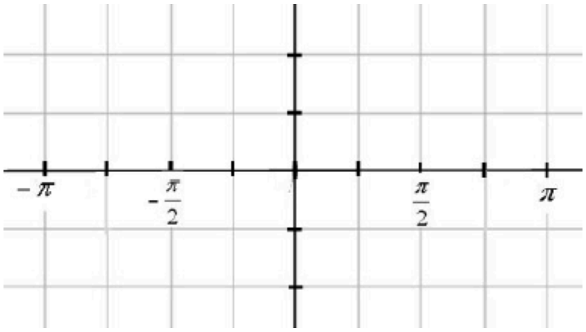
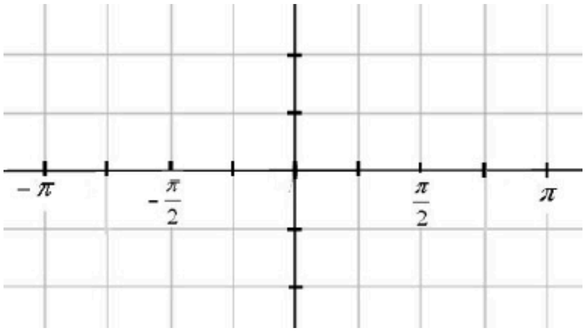
7.2 Derivatives of the Sine and Cosine Functions

The Derivative (f') –









$$\frac{d}{dx}\sin x =$$

$$\frac{d}{dx}\cos x =$$

Differentiate the following:

$y = \sin 3x$

$y = \sin\left(x^3\right)$

$y = \sin^3 x$

$y = \sin^3\left(x^2 - 1\right)$

$y = \cos\left(2x^3 - 1\right)^2$

$y = \sin^2\left(\cos x\right)$

Implicit differentiation: $x \cos y = \sin\left(x + y\right)$

Find the equation of the tangent line to $y = \dfrac{\sin x}{\cos 2x}$ at the point where $x = \dfrac{\pi}{6}$