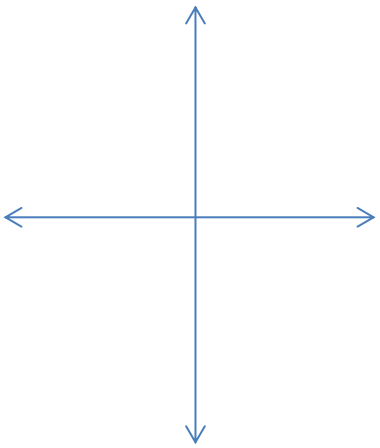
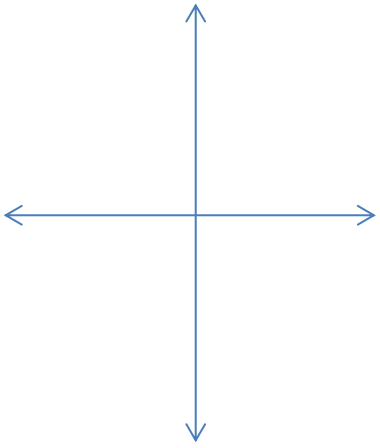
Section 4-4 Arcsine, Arctangent, Arccosine

Sketch 2 angles in standard position illustrating the angle $\cos^{-1}\frac{3}{5}$



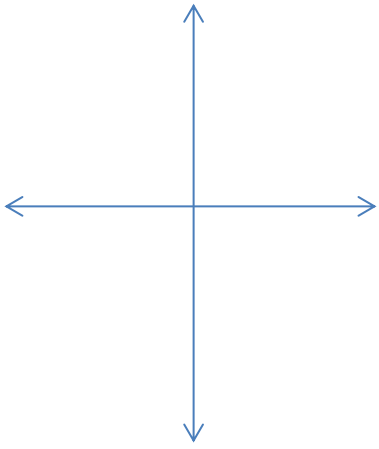
$$arccos\,\theta = \pm\cos^{-1}\theta + 360n$$
$$arccos\,x = \pm\cos^{-1}x + 2\pi n$$

Sketch 2 angles in standard position illustrating the angle $\sin^{-1}\frac{3}{5}$



$$arcsin\,\theta = \sin^{-1}\theta + 360n \quad \underline{\text{or}} \quad (180 - \sin^{-1}\theta) + 360n$$
$$arcsin\,x = \sin^{-1}x + 2\pi n \quad \underline{\text{or}} \quad (\pi - \sin^{-1}x) + 2\pi n$$

Sketch 2 angles in standard position illustrating the angle $\tan^{-1}\frac{3}{5}$



$$\arctan\theta = \tan^{-1}\theta + 180n$$
$$\arctan x = \tan^{-1}x + \pi n$$

Find the general solution for θ or x.

1a) θ = arc cos(0.6)

b) x = arc cos(-0.5)

2a) θ = arc sin(0.8)

b) x = arc sin(0.4)

3a) θ = arctan(1.5)

b) x = arctan(2)