

Solutions:

cosine: P and $2\pi - P$

sine: P and $\pi - P$

tangent: P and $\pi + P$

3. Solve each trigonometric equation for ALL possible solutions. Round answers to three decimal places.

$\sin(x) = -0.55$

$\sin^{-1}(-0.55)$

Principal = -0.582

$\pi - P = 3.724$

$\sin(x) = 0.65$

$\sin^{-1}(0.65)$

$P = 0.708$

$\pi - P = 2.424$

$\sin(x) = -0.83$

$\sin^{-1}(-0.83)$

$P = -0.979$

$\pi - P = 4.121$

$\cos(x) = 0.49$

$\cos^{-1}(0.49)$

$P = 1.059$

$2\pi - P = 5.224$

$\cos(x) = -0.21$

$P = 1.782$

$2\pi - P = 4.501$

$\cos(x) = -0.91$

$P = 2.714$

$2\pi - P = 3.569$

$\tan(x) = 0.98$

$\tan^{-1}(0.98)$

$P = 0.775$

$\pi + P = 3.917$

$\tan(x) = 3.2$

$P = 1.268$

$\pi + P = 4.410$

$\tan(x) = -2.83$

$P = -1.231$

$\pi + P = 1.910$

Problem Set:

two solutions

Solve each trigonometric equation for ALL possible solutions. Round answers to three decimal places.

$\sin(x) = -0.51$

$P = -0.535$

$\pi - P = 3.677$

$\cos(x) = 0.75$

$P = 0.723$

$2\pi - P = 5.560$

$\tan(x) = -0.83$

$P = -0.693$

$\pi + P = 2.449$

$\cos(x) = 0.19$

$P = 1.380$

$2\pi - P = 4.904$

$\sin(x) = -0.81$

$P = -0.944$

$\pi - P = 4.086$

$\cos(x) = -0.21$

$P = 1.782$

$2\pi - P = 4.501$

$$\tan(x) - 1 = 0.98$$

$$\tan(x) = 1.98$$

$$\tan^{-1}(1.98)$$

$$P = 1.103$$

$$\pi + P = 4.245$$

$$\sin(x) - 2 = -1.2$$

$$\sin(x) = 0.8$$

$$\sin^{-1}(0.8)$$

$$P = 0.927$$

$$\pi - P = 2.214$$

$$3 \cos(x) = -2.83$$

$$\cos(x) = -0.943333$$

$$\cos^{-1}(-0.943333)$$

$$P = 2.803$$

$$2\pi - P = 3.480$$

$$3 \cos(x) - 1 = 0.19$$

$$3 \cos(x) = 1.19$$

$$\cos(x) = 0.396666$$

$$\cos^{-1}(0.396666)$$

$$P = 1.163$$

$$2\pi - P = 5.120$$

$$4 \tan(x) - 10 = -0.81$$

$$4 \tan(x) = 9.19$$

$$\tan(x) = 2.2975$$

$$\tan^{-1}(2.2975)$$

$$P = 1.160$$

$$\pi + P = 4.302$$

$$3 \sin(x) = -0.21$$

$$\sin(x) = -0.07$$

$$\sin^{-1}(-0.07)$$

$$P = -0.070$$

$$\pi - P = 3.212$$