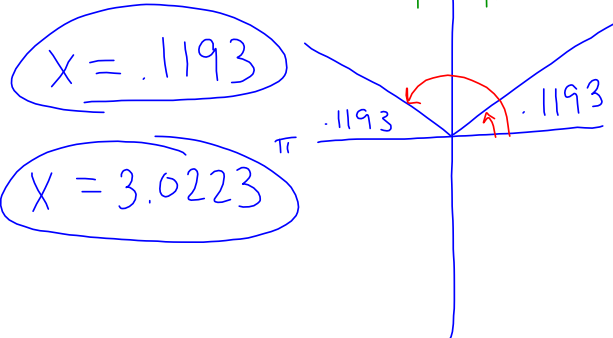
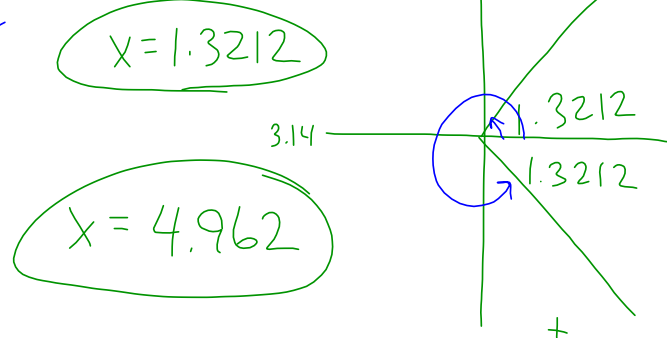


Approximate all solutions in the interval $[0, 2\pi)$ of the given equations.

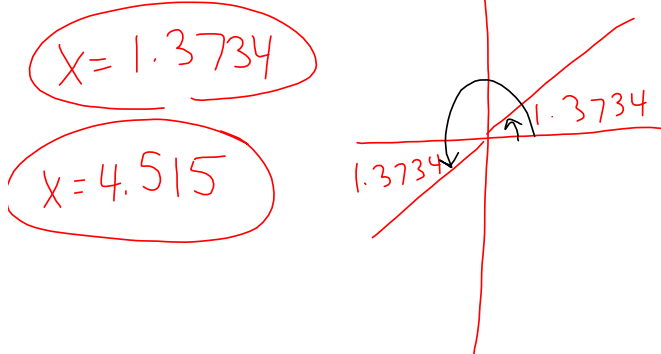
1.) $\sin x = .119$



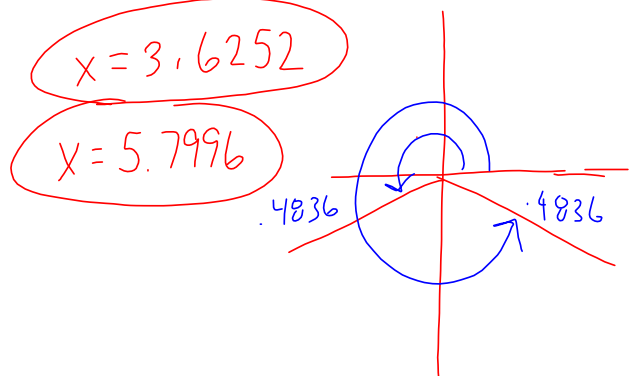
2.) $\cos x = .247$



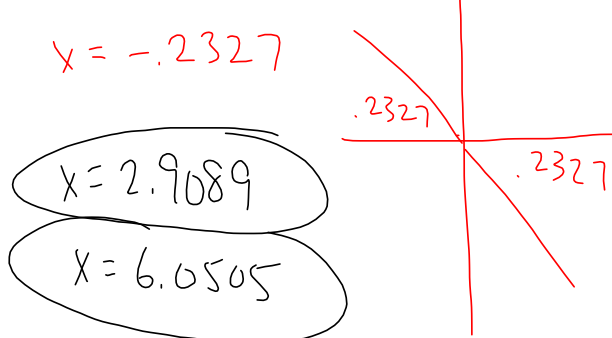
3.) $\tan x = 5$



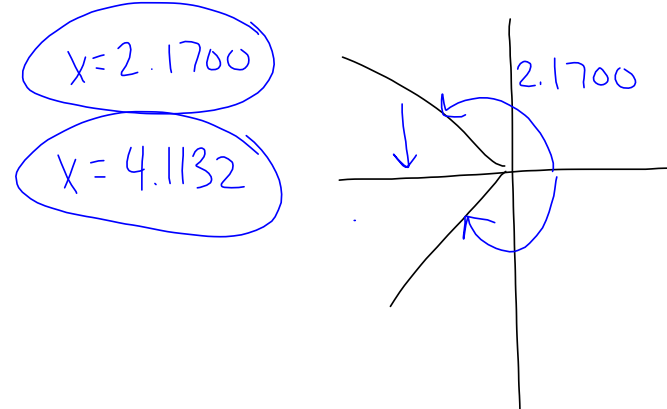
4.) $\sin x = -.465$



5.) $\tan x = -.237$



6.) $\cos x = -.564$



5.3 Continued...

Quadratics and Quadrant Angles

Find the general solutions and list all solutions on the interval: $[0, 2\pi)$.

$$1.) \sec^2 x + \tan x = 3$$

$$1 + \tan^2 x + \tan x - 3 = 0$$

$$\tan^2 x + \tan x - 2 = 0$$

$$(\tan x - 1)(\tan x + 2) = 0$$

$$\tan x = 1$$

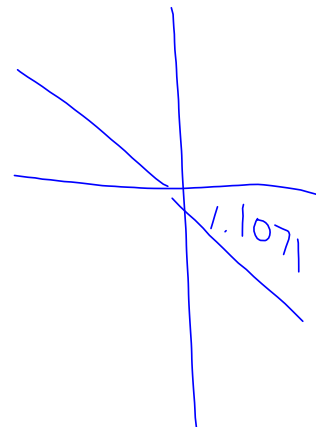
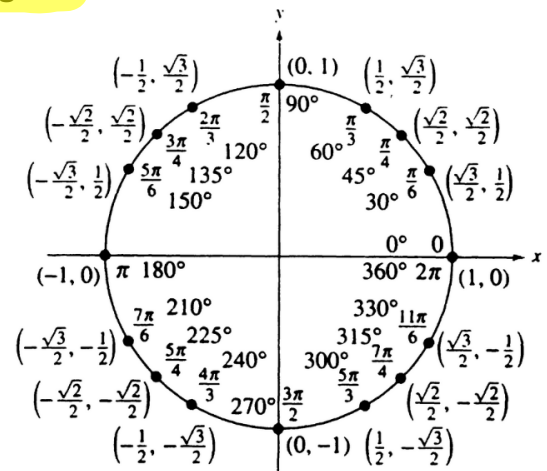
$$x = \frac{\pi}{4}, \frac{5\pi}{4}$$

$$\tan x = -2$$

$$x = -1.1071$$

$$x = 2.0344$$

$$x = 5.1760$$



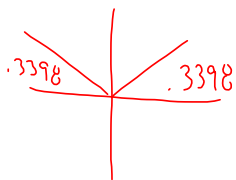
Find the general solutions and list all solutions on the interval: $[0, 2\pi)$.

2.) $12\sin^2 x - 13\sin x + 3 = 0$

$|12w^2 - 9w - 4w + 3|$ $36w^2$
 $-9w - 4w$
 $3w(4w-3) - 1(4w-3)$

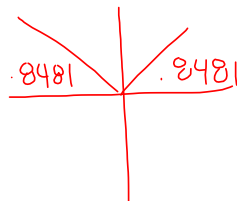
$(3\sin x - 1)(4\sin x - 3) = 0$

$\sin x = \frac{1}{3}$ $\sin x = \frac{3}{4}$



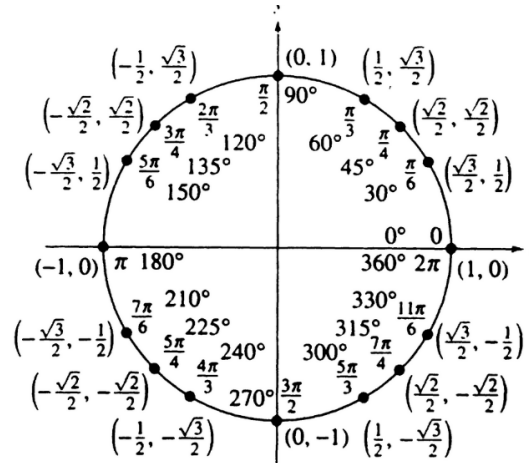
$x = .3398$

$x = 2.8018$



$x = .8481$

$x = 2.2935$



Find the general solutions and list all solutions on the interval: $[0, 2\pi)$.

$$3.) 6\sin^2 x - 7\sin x + 2 = 0$$

$$(3\sin x - 2)(2\sin x - 1) = 0$$

$$\sin x = \frac{2}{3} \quad \sin x = \frac{1}{2}$$

$$x = .7297$$

$$x = \frac{\pi}{6}, \frac{5\pi}{6}$$

$$x = 2.4119$$

