Name : _____

Solving Trigonometric Equations

L1S1

Solve each equation on the interval $0 \le x \le 2\pi$.

1) $(2 \cos x)^2 = 2$

2) $\frac{\sin x}{\sqrt{3}} = \frac{1}{2}$

3) $-3 \csc x = 2\sqrt{3}$

4) $-5 = \tan x - 4$

5) $\frac{\sec x - 1}{\sqrt{5}} = 0$

6) $8 \cot x = 0$

Name : _____

Answer key

L1S1

Solving Trigonometric Equations

Solve each equation on the interval $0 \le x \le 2\pi$.

1) $(2 \cos x)^2 = 2$

$\frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{7\pi}{4}$

2) $\frac{\sin x}{\sqrt{3}} = \frac{1}{2}$

$\frac{\pi}{3}, \frac{2\pi}{3}$

3) $-3 \csc x = 2\sqrt{3}$

$\frac{4\pi}{3}, \frac{5\pi}{3}$

4) $-5 = \tan x - 4$

$\frac{3\pi}{4}, \frac{7\pi}{4}$

5) $\frac{\sec x - 1}{\sqrt{5}} = 0$

0, 2π

6) $8 \cot x = 0$

$\frac{\pi}{2}, \frac{3\pi}{2}$