

	0°	30°	45°	60°	90°	S / C
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	$\frac{S}{C}$
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	
$\tan x$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	undef.	

6 solutions

$$* 4\cos^2 x \tan x - 3\tan x = 0$$

$$\tan x (4\cos^2 x - 3) = 0$$

$$\tan x = 0$$

$$x = \tan^{-1}(0)$$

$$x = 0$$

or

$$x = \pi$$

$$4\cos^2 x - 3 = 0$$

$$4\cos^2 x = 3$$

$$\sqrt{\cos^2 x} = \sqrt{\frac{3}{4}}$$

$$\cos x = \pm \frac{\sqrt{3}}{2}$$

$$x = \frac{\pi}{6}, \frac{5\pi}{6}, \frac{7\pi}{6}, \frac{11\pi}{6}$$

$$\sec^2 x \sin x = 2 \sin x$$

$$\sec^2 x \sin x - 2 \sin x = 0$$

$$\sin x (\sec^2 x - 2) = 0$$

$$\sin x = 0$$

$$x = 0$$

or

$$x = \pi$$

$$\sec^2 x - 2 = 0$$

$$\sqrt{\sec^2 x} = \sqrt{2}$$

$$\sec x = \pm \sqrt{2}$$

$$\cos x = \pm \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\cos x = \pm \frac{\sqrt{2}}{2}$$

$$\csc^2 x \cot x - 4 \cot x = 0$$

$$\cot x (\csc^2 x - 4) = 0$$

$$\cot x = 0$$

$$\tan x = \text{undef.}$$

$$* x = \frac{\pi}{2} \checkmark$$

$$* x = \frac{3\pi}{2} \checkmark$$

$$\csc^2 x - 4 = 0$$
$$\sqrt{\csc^2 x} = \sqrt{4}$$

$$\csc x = \pm 2$$

$$\sin x = \pm \frac{1}{2}$$

$$x = \frac{\pi}{6}, \frac{5\pi}{6}, \frac{7\pi}{6}, \frac{11\pi}{6}$$