

Solving Trig Equations (Using the Unit Circle)

To solve trig equations: _____.

Infinitely Many Solutions

Examples: Solve the following trig equations for values between 0 and 2π .

1. $2\sin x - 1 = 0$

2. $2\sin x + 1 = 0$

3. $\sin x + \sqrt{2} = -\sin x$

4. $\tan x + \sqrt{3} = 0$

5. $3\tan^2 x - 1 = 0$

6. $\tan^2 x - 1 = 0$

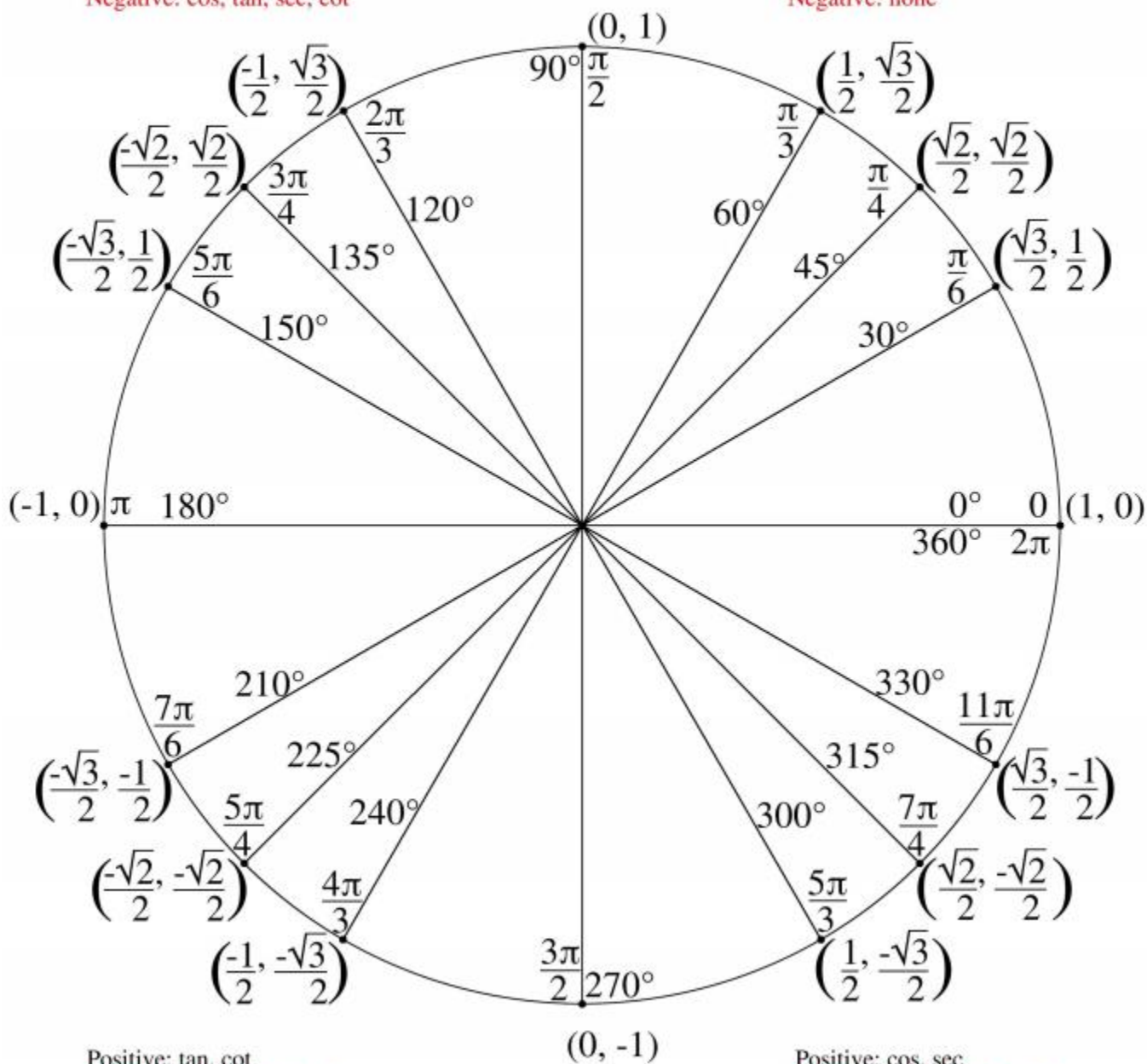
7. $\sqrt{2}\sin x + 1 = 0$

8. $\tan^2 x - 1 = 0$

The Unit Circle

Positive: sin, csc
 Negative: cos, tan, sec, cot

Positive: sin, cos, tan, sec, csc, cot
 Negative: none



Positive: tan, cot
 Negative: sin, cos, sec, csc

Positive: cos, sec
 Negative: sin, tan, csc, cot