SOLVING WITH TRIGONOMETRIC IDENTITIES: GUIDED NOTES

Examples

Solve each of the following equations for all radian values of θ.

Look Familiar?

Hint: Use your knowledge of factoring or other algebraic methods like the quadratic formula.

1) $2\sin\theta\cos\theta = \sqrt{3}\cdot\cos\theta$

Try Identities?

Hint: When you see more than one type of trig expression, try using a Pythagorean identity.

2) $\sec\theta = 1 - \tan^2\theta$

What if…?

Hint: If you squared both sides, could you then use a Pythagorean identity? Watch out for extraneous solutions.

3) $\csc\theta + \cot\theta = 1$