

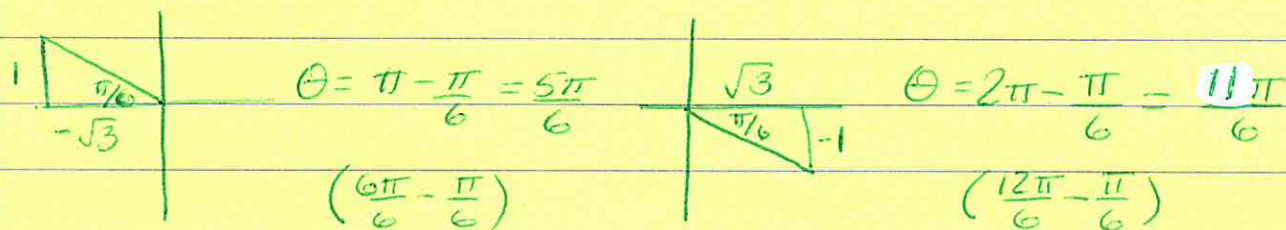
Solving Trig Equations

For each equation, find the TWO solutions from $0 \leq \theta \leq 2\pi$. Draw and label the reference Δ 's + show the angle arithmetic to find θ .

Example

$$\tan \theta = -\frac{\sqrt{3}}{3} \quad (\text{unrationalize} \rightarrow -\frac{1}{\sqrt{3}})$$

$\tan$ is negative in $\text{II} + \text{IV}$



1. $\sin \theta = \frac{1}{2}$

2. $\cos \theta = \frac{\sqrt{2}}{2}$

3. $\csc \theta = \frac{2\sqrt{3}}{3}$

4. $\csc \theta = -\sqrt{2}$

5. $\sec \theta = -\frac{2\sqrt{3}}{3}$

6. $\cot \theta = -\sqrt{3}$

7. $\sin \theta = -\frac{1}{2}$

8. $\cos \theta = -\frac{\sqrt{2}}{2}$

9. $\cot \theta = -1$

10. $\csc \theta = 2$

11. $\cos \theta = -\frac{1}{2}$

12. $\sec \theta = \sqrt{2}$

13. $\sec \theta = \text{undefined}$

14. $\csc \theta = \text{undefined}$