

## HW 4.2.1.b: Solving Trigonometric Equations

Solve the trigonometric equation using the unit circle. Answers should be  $0 \leq \theta < 2\pi$ . Each question may have multiple answers.

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

2.)  $\cos \theta = -\frac{\sqrt{3}}{2}$

3.)  $\tan \theta = -1$

4.)  $\sin \theta = -\frac{\sqrt{3}}{2}$

5.)  $\cos \theta = 0$

6.)  $\csc \theta = \sqrt{2}$

7.)  $\sec \theta = \frac{2\sqrt{3}}{3}$

8.)  $\sin \theta = -1$

9.)  $\tan \theta = \sqrt{3}$

10.)  $\cos \theta = \frac{1}{2}$

11.)  $\tan \theta = \text{undefined}$

12.)  $\sin \theta = 1$

13.)  $\cos \theta = \frac{\sqrt{3}}{2}$

14.)  $\cot \theta = -\sqrt{3}$

15.)  $\csc \theta = -2$

16.)  $\sec \theta = -1$

17.)  $\tan \theta = \frac{\sqrt{3}}{3}$

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

19.)  $\sec \theta = \text{undefined}$

20.)  $\cos \theta = 1$

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

22.)  $\sin \theta = \frac{\sqrt{3}}{2}$

23.)  $\cot \theta = -\frac{\sqrt{3}}{3}$

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