

STUDY GUIDE (SECTION 4.7)

Solve each equation for $0 \leq \theta < 720$.

1) $\frac{-6 + \sqrt{2}}{2} = -3 + \cos \theta$

2) $4\sin \theta = 2$

3) $\frac{11}{2} = 5 + \cos \theta$

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

5) $5 + \sin \theta = \frac{11}{2}$

Solve each equation for $0 \leq \theta < 4\pi$.

6) $2 + \sin \theta = \frac{3}{2}$

7) $-\sqrt{3} = -\tan \theta$

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

9) $2 + \tan \theta = 3$

10) $\frac{1}{5} \cdot \tan \theta = \frac{1}{5}$

Solve each equation for $0 \leq \theta < 2\pi$. Round your answers to the nearest thousandth.
(Calculator)

11) $1 + \cos \theta = 1.55$

12) $1 + \tan \theta = 3.27$

13) $-5 + \tan \theta = 2.62$

14) $0.3 = 2\cos \theta$

15) $3.94 = 4 + \cos \theta$

Solve each equation for $0 \leq \theta < 360$. Round your answers to the nearest thousandth.
(Calculator)

16) $4 + \tan \theta = 6.24$

17) $-1 + \cos \theta = -1.44$

18) $-0.76 = -4\cos \theta$

19) $-0.77 = -1 + \sin \theta$

20) $4\cos \theta = 2.28$

Evaluate the following without a calculator:

$$\arcsin(\sqrt{3}/2) =$$

$$\arcsin(-1) =$$

$$\arccos(0) =$$

$$\arccos(\sqrt{2}/2) =$$

$$\arctan(0) =$$

$$\arctan(-1) =$$

$$\arcsin(\sqrt{3}) =$$

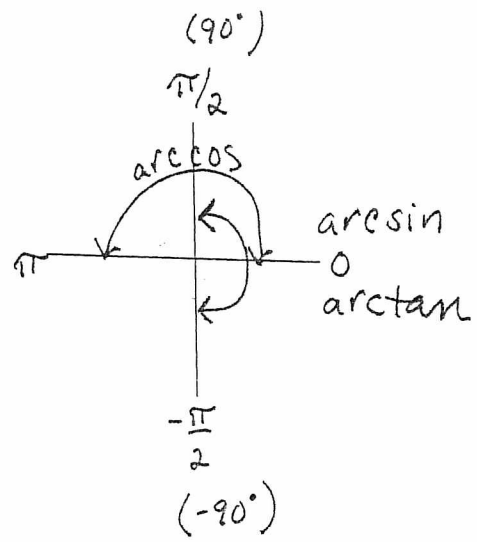
$$\arctan(1) =$$

$$\arccos(-\sqrt{2}/2) =$$

$$\arctan(-\sqrt{3}/3) =$$

$$\arccos(-1/2) =$$

$$\arctan(\sqrt{3}) =$$



Evaluate each without a calculator:

$$\cos(\arcsin(-1)) =$$

$$\tan(\arccos(-\frac{1}{2})) =$$

$$\sin(\arctan(-\frac{\sqrt{3}}{3})) =$$

$$\arctan(\tan \frac{5\pi}{6}) =$$

$$\arccos(\sin \frac{4\pi}{3}) =$$

$$\arcsin(\cos \frac{7\pi}{6}) =$$

Evaluate each of the following. Sketch a triangle in the appropriate quadrant.

$$\cos(\arcsin \frac{5}{13}) =$$

$$\sec(\arctan \frac{-3}{5}) =$$

$$\tan(\arcsin \frac{-5}{6}) =$$

$$\csc(\arccos \frac{-2}{3}) =$$

$$\cot(\arccos x) =$$

$$\cos(\arcsin 2x) =$$

$$\tan(\arccos \frac{1}{3x}) =$$