

For each angle shown, determine all of the trig function values. If a function is undefined, write U.

Time yourself and try to improve your time over repeated tries. When repeating the worksheet, change the order in which you answer.

| Angle θ (radians) | $\sin \theta$ | $\cos \theta$ | $\tan \theta$ | $\csc \theta$ | $\sec \theta$ | $\cot \theta$ |
|---|-----------------------|-----------------------|-----------------------|------------------------|------------------------|-----------------------|
|  | $\frac{1}{2}$ | $\frac{\sqrt{3}}{2}$ | $\frac{\sqrt{3}}{3}$ | 2 | $\frac{2\sqrt{3}}{3}$ | $\sqrt{3}$ |
|  | $-\frac{1}{2}$ | $-\frac{\sqrt{3}}{2}$ | $\frac{\sqrt{3}}{3}$ | -2 | $-\frac{2\sqrt{3}}{3}$ | $\sqrt{3}$ |
|  | 1 | 0 | U | 1 | U | 0 |
|  | $\frac{\sqrt{3}}{2}$ | $-\frac{1}{2}$ | $-\sqrt{3}$ | $\frac{2\sqrt{3}}{3}$ | -2 | $-\frac{\sqrt{3}}{3}$ |
|  | $-\frac{\sqrt{2}}{2}$ | $-\frac{\sqrt{2}}{2}$ | 1 | $-\sqrt{2}$ | $-\sqrt{2}$ | 1 |
|  | 0 | -1 | 0 | U | -1 | U |
|  | $-\frac{\sqrt{3}}{2}$ | $-\frac{1}{2}$ | $\sqrt{3}$ | $-\frac{2\sqrt{3}}{3}$ | -2 | $\frac{\sqrt{3}}{3}$ |
|  | -1 | 0 | U | -1 | U | 0 |
|  | 0 | 1 | 0 | U | 1 | U |
|  | $-\frac{\sqrt{3}}{2}$ | $\frac{1}{2}$ | $-\sqrt{3}$ | $-\frac{2\sqrt{3}}{3}$ | 2 | $-\frac{\sqrt{3}}{3}$ |
|  | $-\frac{1}{2}$ | $\frac{\sqrt{3}}{2}$ | $-\frac{\sqrt{3}}{3}$ | -2 | $\frac{2\sqrt{3}}{3}$ | $-\sqrt{3}$ |
|  | $\frac{\sqrt{2}}{2}$ | $-\frac{\sqrt{2}}{2}$ | -1 | $\sqrt{2}$ | $-\sqrt{2}$ | -1 |
|  | $\frac{\sqrt{2}}{2}$ | $\frac{\sqrt{2}}{2}$ | 1 | $\sqrt{2}$ | $\sqrt{2}$ | 1 |
|  | $\frac{1}{2}$ | $-\frac{\sqrt{3}}{2}$ | $-\frac{\sqrt{3}}{3}$ | 2 | $-\frac{2\sqrt{3}}{3}$ | $-\sqrt{3}$ |
|  | $\frac{\sqrt{3}}{2}$ | $\frac{1}{2}$ | $\sqrt{3}$ | $\frac{2\sqrt{3}}{3}$ | 2 | $\frac{\sqrt{3}}{3}$ |
|  | $\frac{\sqrt{2}}{2}$ | $-\frac{\sqrt{2}}{2}$ | -1 | $\sqrt{2}$ | $-\sqrt{2}$ | -1 |
|  | $-\frac{1}{2}$ | $-\frac{\sqrt{3}}{2}$ | $\frac{\sqrt{3}}{3}$ | -2 | $-\frac{2\sqrt{3}}{3}$ | $\sqrt{3}$ |
|  | $\frac{\sqrt{2}}{2}$ | $-\frac{\sqrt{2}}{2}$ | -1 | $\sqrt{2}$ | $-\sqrt{2}$ | -1 |
|  | 0 | 1 | 0 | U | 1 | U |
| | 1 | 0 | U | 1 | U | 0 |
| | $\frac{1}{2}$ | $-\frac{\sqrt{3}}{2}$ | $-\frac{\sqrt{3}}{3}$ | 2 | $-\frac{2\sqrt{3}}{3}$ | $-\sqrt{3}$ |