

Trigonometry Supplement 3

- 1) Find the exact measure of each of the following angles in radians.
- a) 120° b) 225° c) 150° ~~_____~~ e) 330° f) 315°
- 2) Convert each of the following angles to radians, finding a decimal approximation to the nearest hundredth for each angle. Note that these angles represent the borders between the quadrants.
- a) 90° b) 180° c) 270° d) 360°
- 3) Find the exact value of each of the following.
- a) ~~_____~~ $\frac{\pi}{2}$ b) ~~_____~~ $\frac{3\pi}{2}$ c) $\tan \frac{\pi}{6}$ d) ~~_____~~
- e) $\cos \frac{\pi}{3}$ f) $\tan \frac{3\pi}{4}$ g) $\sin \frac{11\pi}{6}$ h) $\cos \frac{2\pi}{3}$
- 4) Find the exact value of each of the following.
- a) ~~_____~~ $\frac{3\pi}{2}$ b) $\cos \frac{5\pi}{6}$ c) $\tan \frac{4\pi}{3}$ d) ~~_____~~
- e) $\cos \frac{7\pi}{6}$ f) $\tan \frac{\pi}{4}$ g) $\sin \frac{5\pi}{6}$ h) $\cos \frac{4\pi}{3}$
- 8) Find the exact value of each of the following. Leave answers in simplest radical form.
- a) $\sin \frac{3\pi}{4} =$ b) $\cos \frac{7\pi}{6} =$ c) ~~_____~~ $\frac{3\pi}{2}$ d) $\tan \frac{11\pi}{6} =$ e) ~~_____~~ $\frac{\pi}{2} =$
- f) $\cos \frac{7\pi}{4} =$ g) $\sin \frac{4\pi}{3} =$ h) $\tan \frac{5\pi}{3} =$ i) $\cos \frac{5\pi}{6} =$ j) ~~_____~~
- 9) Find the exact value of each of the following. Leave answers in simplest radical form.
- a) ~~_____~~ $\frac{3\pi}{2} =$ b) $\cos \frac{11\pi}{6} =$ c) ~~_____~~ $\frac{\pi}{2} =$ d) $\tan \frac{7\pi}{3} =$ e) $\sin \frac{5\pi}{3} =$
- f) $\cos \frac{3\pi}{4} =$ g) $\sin \frac{\pi}{6} =$ h) $\tan \frac{5\pi}{6} =$ i) $\cos \frac{7\pi}{6} =$ j) ~~_____~~
- 10) Solve each of the following equations for all values of θ such that $0 \leq \theta < 2\pi$. Each answer should be expressed as exactly in terms of π .
- a) $\sin \theta = \frac{\sqrt{2}}{2}$ b) ~~_____~~ c) $\tan \theta = -1$
- d) $\sin \theta = -\frac{1}{2}$ e) $\cos \theta = \frac{\sqrt{3}}{2}$ f) ~~_____~~
- 11) Solve each of the following equations for all values of θ such that $0 \leq \theta < 2\pi$. Each answer should be expressed as exactly in terms of π .
- a) $\sin \theta = \frac{\sqrt{3}}{2}$ b) ~~_____~~ c) $\tan \theta = 1$
- d) $\cos \theta = -\frac{1}{\sqrt{2}}$ e) $\cos \theta = -\frac{\sqrt{2}}{2}$ f) ~~_____~~