

Section # _____ Name _____

UF ID # _____ Signature _____

1. Which of the following angles is NOT coterminal with 75° ?

- A. 255° B. 795° C. -285° D. 435°
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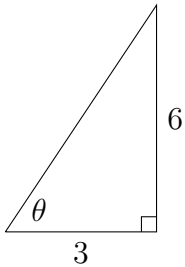
2. Determine the quadrant in which $-\frac{2\pi}{3}$ lies.

- A. III B. IV C. I D. II
-

3. Rewrite 400° in radian measure as a multiple of π . Simplify any fractions **completely**.

- A. $\frac{80\pi}{36}$ B. $\frac{40\pi}{18}$ C. $\frac{20}{9}$ D. $\frac{20\pi}{9}$
-

4. Evaluate $\csc \theta$ for the angle θ shown in the figure.



- A. $\frac{\sqrt{5}}{2}$ B. $\frac{\sqrt{5}}{5}$ C. $\frac{2\sqrt{5}}{5}$ D. $\sqrt{5}$
-

5. Which of the following is a solution to the equation $\sin \theta = -\frac{1}{2}$?

- A. $\frac{5\pi}{6}$ B. $\frac{5\pi}{3}$ C. $\frac{4\pi}{3}$ D. $\frac{11\pi}{6}$
-

6. Evaluate $\cos \frac{13\pi}{4}$.

- A. 1 B. $\frac{\sqrt{2}}{2}$ C. -1 D. $-\frac{\sqrt{2}}{2}$
-

7. Which of the following equations is NOT a trigonometric identity?

- A. $\cos\left(\frac{\pi}{2} - \theta\right) = \sin \theta$ C. $\sin(-\theta) = -\sin \theta$
B. $\tan \theta = \frac{\sin \theta}{\cos \theta}$ D. $\sin \theta + \cos \theta = 1$
-

8. $(-1, 3)$ is a point on the terminal side of an angle in standard position. Determine $\sec \theta$.

- A. $\sqrt{10}$ B. $\frac{3\sqrt{10}}{10}$ C. $-\sqrt{10}$ D. $\frac{\sqrt{10}}{3}$
-

9. State the quadrant in which θ lies if $\cos \theta < 0$ and $\tan \theta < 0$.

- A. I B. II C. III D. IV
-

10. Given $\sin \theta = -\frac{3}{7}$ and $\cos \theta > 0$, find $\cot \theta$.

- A. $\frac{2\sqrt{10}}{3}$ B. $\frac{3\sqrt{10}}{20}$ C. $-\frac{2\sqrt{10}}{3}$ D. $-\frac{3\sqrt{10}}{20}$
-

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YOU MUST SHOW ALL WORK TO RECEIVE FULL CREDIT.

1. (4 points) Identify each statement as true or false. (Just write true or false beside each statement.)

(a) In order to convert from radians to degrees, multiply the angle by $\frac{180^\circ}{\pi}$.

(b) The complement of 150° is -60° because $-60^\circ + 150^\circ = 90^\circ$.

(c) $\tan \pi$ is undefined because $\sin \pi = 0$.

(d) $\cos(-\theta) = \cos \theta$ for any angle θ because cosine is an even function.

2. (6 points) Let θ be an acute angle and $\sin \theta = \frac{3}{4}$. (a) Sketch a corresponding right triangle and use the Pythagorean Theorem to find $\cos \theta$.

(b) Use a trigonometric identity to find $\cos \theta$.

3. (a) (4 points) Given $\cos \theta = -\frac{1}{5}$ and $\cot \theta < 0$, find $\csc \theta$.

(b) (2 points) Given $\tan \theta$ is undefined and $\pi \leq \theta \leq 2\pi$, find $\sin \theta$.

4. (4 points) Given $\sec \theta = \frac{7}{6}$ and θ lies in Quadrant IV, use a trigonometric identity to find $\tan \theta$. (You MUST use a trigonometric identity to receive any credit.)