Unit 4 Test C Practice Test Name_____

Find the exact value of the function without using a calculator.

1. $\tan\frac{14\pi}{6}$ =

2. cos 600° =

3. sin $\frac{19\pi}{4}$ =

4. csc 540° =

5. sec (-30)° =

6. cot $\frac{-\pi}{3}$ =

7. cos (-210)° =

8. sin $\frac{-4\pi}{3}$ =

Find the exact value of the expression. Give the answer in both degrees and radians.

1. $\sin^{-1}\frac{1}{2} =$

2. $\cos^{-1}\frac{-\sqrt{3}}{2} =$

3. $\tan^{-1}(1) =$

4. $\tan^{-1}\left(\frac{-1}{\sqrt{3}}\right) =$

5. $\cos^{-1}\left(\frac{1}{2}\right) =$

6. $\sin^{-1}\left(\frac{-\sqrt{3}}{2}\right) =$

Find the exact value of the expression

7. $cot\left(sin^{-1}\left(\frac{-1}{2}\right)\right) =$

Solve each equation between $0 \le \theta < 360$ or $0 \le \theta < 2\pi$

9. $\sqrt{2}\sin\theta - 1 = 0$

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

11. $-2\sin\theta = 1$

12. $\sqrt{3}\tan(\theta) + 1 = 2$

13. $\cos\left(\theta + \frac{\pi}{6}\right) = \frac{1}{2}$

14. $2\cos^2\theta + 1 = 2$

1. Given that $\csc\theta = \frac{\sqrt{6}}{2}$, use definitions or identities to find the exact value of the remaining five trigonometric functions of the acute angle θ found in quadrant 1.

$\sin\theta$ = $\csc\theta$ =

$\cos\theta$ = $\sec\theta$ =

$\tan\theta$ = $\cot\theta$ =

2. Find the six trigonometric functions given the point (-7 , -9)

$\sin\theta$ = $\csc\theta$ =

$\cos\theta$ = $\sec\theta$ =

$\tan\theta$ = $\cot\theta$ =

Given the following information, find the exact value of the trigonometric function

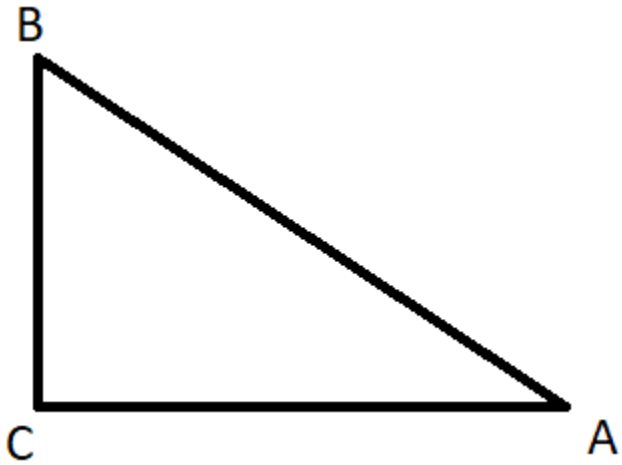
3. $\csc\theta = \frac{7}{4}$ and $\tan\theta < 0$ find $\cos\theta$

4. $\sec\theta = \frac{9}{-2}$ and $\tan\theta > 0$ find $\cot\theta$

5. $\cos\theta = \frac{2}{7}$ and and $\cot > 0$ find $\tan\theta$

4. Given an angle and a side of the triangle. Find the measurements of all missing sides and missing angles

$\angle B = 22^\circ$ c = 15



5. A 32-foot ladder is leaning against the side of a building. If the ladder makes an angle of elevation of 20° with the ground, how far is the bottom of the ladder from the base of the building? Round your answer to the hundredths place.

Solve the equation between $0 \le \theta < 360$. Round your answers to the nearest tenth.

6. $\sin\theta = .364$