

1. Sketch the angle θ in standard position. Then find the exact values for $\cos \theta$ and $\tan \theta$.

A. $\theta = \frac{-7\pi}{3}$

B. $\theta = \frac{5\pi}{4}$

C. $\theta = \frac{5\pi}{6}$

D. $\theta = \pi$

2. In each case, determine the quadrant(s) for angle T .

A. $\sin T < 0$ and $\cos T > 0$

B. $\cos T < 0$ and $\tan T < 0$

C. $\sec T > 0$ and $\csc T > 0$

D. $\cot T < 0$ and $\cos^2 T > 0$

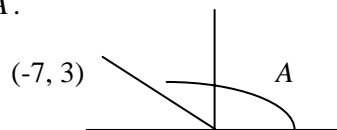
3. Solve for the angle so that $0 \leq \text{angle} < 2\pi$. In each case there are two solutions.

A. $\sin \theta = \frac{-\sqrt{3}}{2}$

B. $\tan \beta = 0$

C. $\sec \alpha$ is undefined

4. Find the exact value for $\csc A$.



5. Solve for the variable so that $0 \leq \text{variable} \leq \pi$. Express your answers in radians.

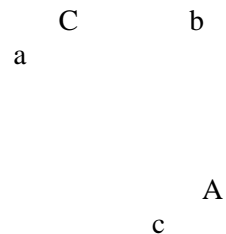
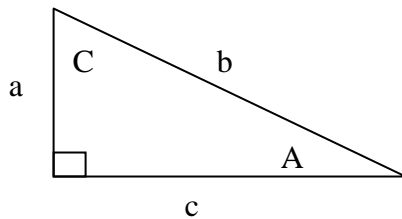
A. $\frac{1 + \tan y}{\sin y} = 0$

B. $2 \cos^2 t - 16 = 0$

C. $\sin(2x) - \cos(x) = 0$

6. Find the exact value for $\csc\left(\tan^{-1}\left(\frac{x}{\sqrt{2}}\right)\right)$. Your answer will be in terms of x .

7. Express the area of this triangle in terms of A , b , and c .



8. Simplify completely:
$$\frac{(1 - \cos \theta) \cos \theta - \sin \theta \cdot \sin \theta}{(1 - \cos \theta)^2}$$