

Trig Extended: Circular Functions Cont'd (Target 6A)

Review of Prior Concepts

(PARCC Sample Question)

1. Angle θ is in Quadrant II, and $\sin \theta = \frac{4}{5}$.

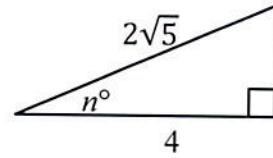
What is the value of $\cos \theta$?

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

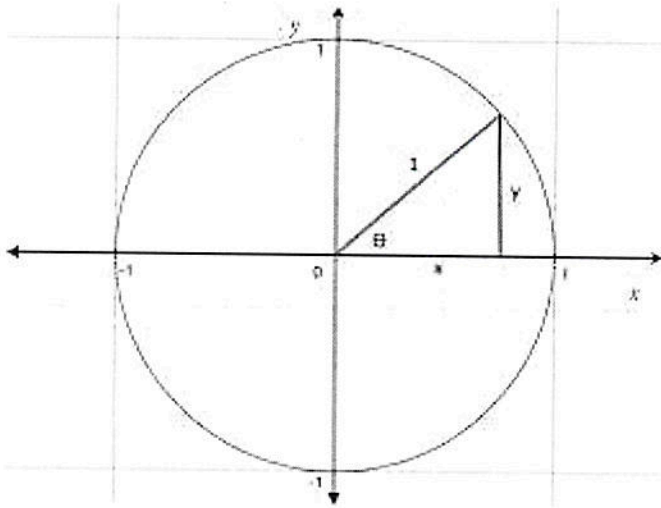
(ACT Sample Question)

2. In the following triangle, what is the value of $\csc n$?

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



Target 6C explained



Prove $\cos^2 \theta + \sin^2 \theta = 1$.

Examples

1. Find $\cos \theta$ given that $\sin \theta = \frac{1}{2}$ in Quadrant II.

2. Find $\cos \theta$ given that $\sin \theta = -\frac{\sqrt{2}}{2}$ in Quadrant IV.

3. Find $\sin \theta$ given that $\cos \theta = \frac{5}{13}$ in Quadrant I.

4. $\tan \theta$ is negative. In which quadrant(s) would θ be located if $\sin \theta$ is negative?

5. What is $\cos \theta$ for an angle θ in standard position whose terminal side contains the point $(-8, -15)$?