

F.TF.C.8: Finding the Terminal Side of an Angle 2

- 1 In which quadrant does θ lie if $\tan \theta < 0$ and $\csc \theta > 0$?

- 2 If $\sin A < 0$ and $\cot A > 0$, in which quadrant does the terminal side of $\angle A$ lie?

- 3 In which quadrant are both tangent and cosecant negative?

- 4 If $\sin x = -\frac{2}{3}$ and $\tan x < 0$, in which quadrant does $\angle x$ terminate?

- 5 Natalia's teacher has given her the following information about angle θ .
 - $\pi < \theta < 2\pi$
 - $\cos \theta = \frac{\sqrt{3}}{4}$

Explain how Natalia can determine if the value of $\tan \theta$ is positive or negative.

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Answer Section

1 ANS:
II

REF: 089409siii

2 ANS:
III

REF: 060006siii

3 ANS:
IV

REF: 010107siii

4 ANS:
IV

REF: 018705siii

5 ANS:
 $\pi < \theta < 2\pi \rightarrow$ Quadrant III or IV θ must be in Quadrant IV, where $\tan \theta$ is negative.

$$\cos \theta = \frac{\sqrt{3}}{4} \rightarrow \text{Quadrant I or IV}$$

REF: 012332aii