

Day #68 Homework

The terminal side of an angle, θ , passes through the given ordered pairs below. For each angle, draw and label the reference triangle and find the values of the six trigonometric ratios. Show your work.

1. $(-12, -5)$	2. $(7, -24)$	3. $(-\sqrt{3}, 1)$

Given the constraints on the angles below, determine in which quadrant or on which axis the terminal side of the angle lies. If no such angle exists, state so. Completely explain your reasoning.

4. $\sin \theta > 0$ and $\tan \theta < 0$	5. $\sec \theta > 0$ and $\cot \theta < 0$
6. $\sin \theta < 0$ and $\cos \theta > 0$	7. $\cos \theta > 0$ and $\sec \theta$ is undefined

8. If $\tan \theta = -\frac{15}{8}$ and $\sin \theta < 0$, find the exact value of the other five trigonometric ratios. If no such angle θ exists, explain why.
9. If $\sec \theta = -2$ and $\sin \theta > 0$, find the exact value of the other five trigonometric ratios. If no such angle θ exists, explain why.
10. If $\sin \theta = \frac{3}{5}$ and $\sec \theta > 0$, find the exact value of the other five trigonometric ratios. If no such angle θ exists, explain why.
11. If the terminal side of θ is in Quadrant IV and lies on the line $4x + 3y = 0$, find the exact value of the six trigonometric ratios. If no such angle θ exists, explain why.
12. If $\cos \theta = -\frac{4}{5}$ and θ terminates in Quadrant IV, find the exact value of the other five trigonometric ratios. If no such angle θ exists, explain why.