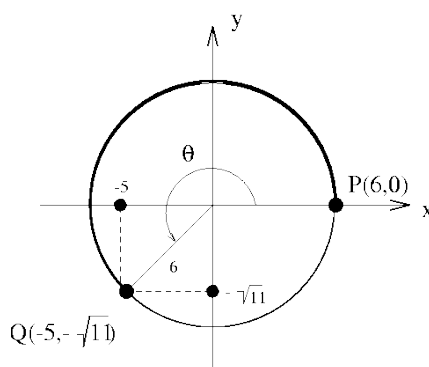


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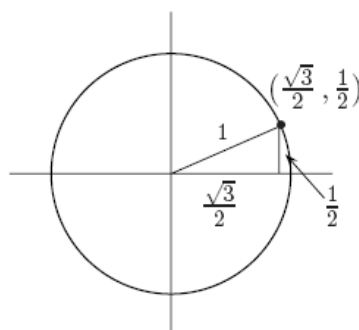
Trigonometric Functions: The Unit Circle

- 1) If an angle X is in standard position and intersects the circle at $(-2, \frac{3}{2})$. Find the six trigonometric functions.

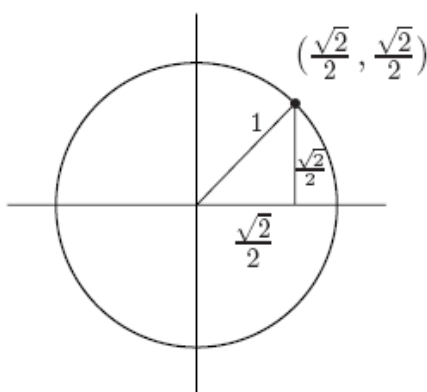
- 2) Find all trigonometric functions of an angle θ in the third quadrant for which $\cos \theta = -\frac{5}{6}$.



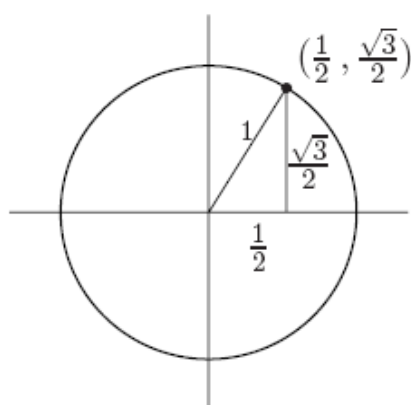
- 3) Find the six trigonometric functions of the angle formed by the horizontal axis and the line passing through the origin and the point whose coordinates are shown in the diagram



- 4) Find the six trigonometric functions of the angle formed by the horizontal axis and the line passing through the origin and the point whose coordinates are shown in the diagram



- 5) Find the six trigonometric functions of the angle formed by the horizontal axis and the line passing through the origin and the point whose coordinates are shown in the diagram



- 6) Using the **unit circle**, do you think that any of the coordinates of a point on the circle can be larger than 1 or smaller than -1. Why do you think that $\sin(x)$ and $\cos(x)$ cannot be larger than 1 or smaller than -1?