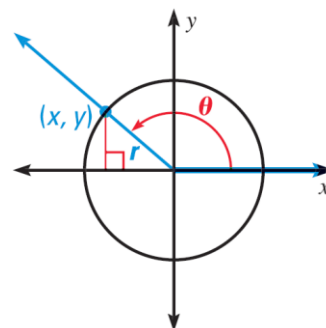


Algebra 2

10-03 Trigonometric Functions of Any Angle

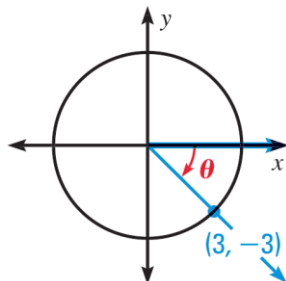
- Think of a _____ on the _____ side of an angle
- You can draw a right triangle with the _____
- $\sin \theta = \frac{y}{r}$ $\csc \theta = \frac{r}{y}$
- $\cos \theta = \frac{x}{r}$ $\sec \theta = \frac{r}{x}$
- $\tan \theta = \frac{y}{x}$ $\cot \theta = \frac{x}{y}$



Unit Circle

- $r = 1$

Evaluate the six trigonometric functions of θ .



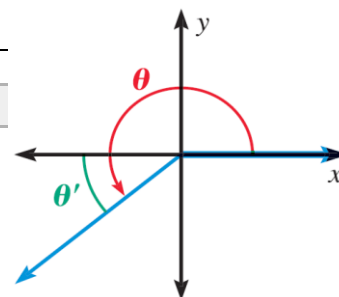
Quadrantal Angles

Evaluate the six trigonometric functions of θ .

$$\theta = 180^\circ$$

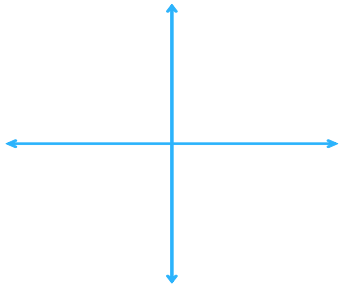
Reference Angle

- Angle between _____ side and _____
- Has the same values for trig functions as _____ quadrant angles
- You just have to add the _____ signs

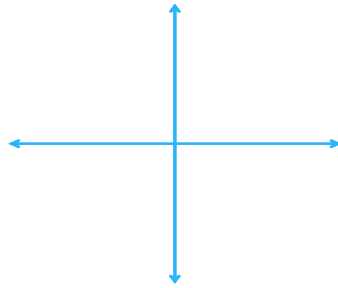


Sketch the angle. Then find its reference angle.

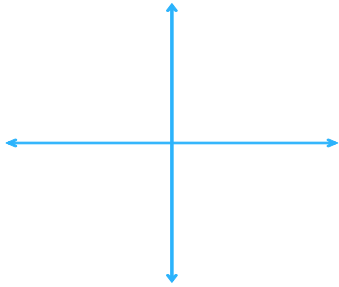
150°



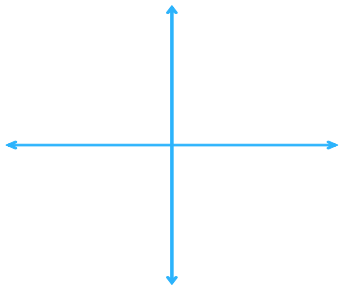
$\frac{23\pi}{4}$



Evaluate $\cos(-60^\circ)$ without a calculator.



$\sin(-150^\circ)$



Estimate the horizontal distance traveled by a Red Kangaroo who jumps at an angle of 8° and with an initial speed of 53 feet per second (35 mph).

542 #1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 25, 29, 33, 35, 41, 51, 53, 57, 58, 59 = 20