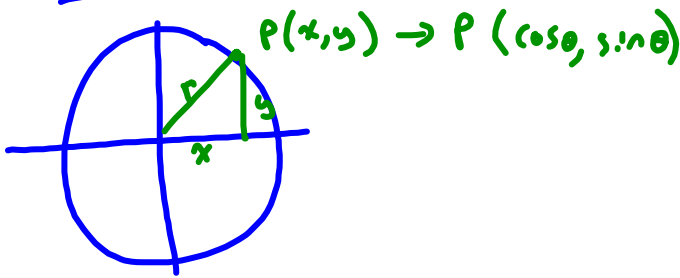


5.3 Unit Circle (cont.)

Review



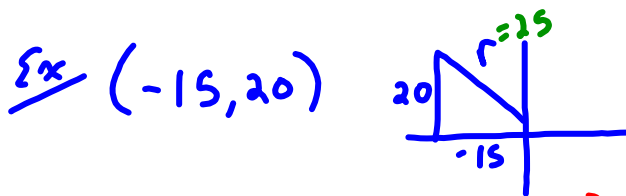
Ex 210°

$y \rightarrow \sin 210^\circ = -\frac{1}{2} \rightarrow \csc 210^\circ = -2$

$x \rightarrow \cos 210^\circ = -\frac{\sqrt{3}}{2} \rightarrow \sec 210^\circ = \frac{-2}{\frac{\sqrt{3}}{2}} = -\frac{2\sqrt{3}}{3}$

$\frac{y}{x} \rightarrow \tan 210^\circ = \frac{-\frac{1}{2}}{-\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$

$\rightarrow \cot 210^\circ = \frac{3}{\sqrt{3}} = \sqrt{3}$



$\sin \theta = \frac{y}{r} = \frac{20}{25} = \frac{4}{5}$

$\cos \theta = \frac{x}{r} = \frac{-15}{25} = -\frac{3}{5}$

$(-15)^2 + 20^2 = r^2$

$225 + 400 = r^2$

$\sqrt{625} = \sqrt{r^2}$

$25 = r$

$\tan \theta = \frac{y}{x}$

$\csc \theta = \frac{r}{y}$

$\sec \theta = \frac{r}{x}$

$\cot \theta = \frac{x}{y}$