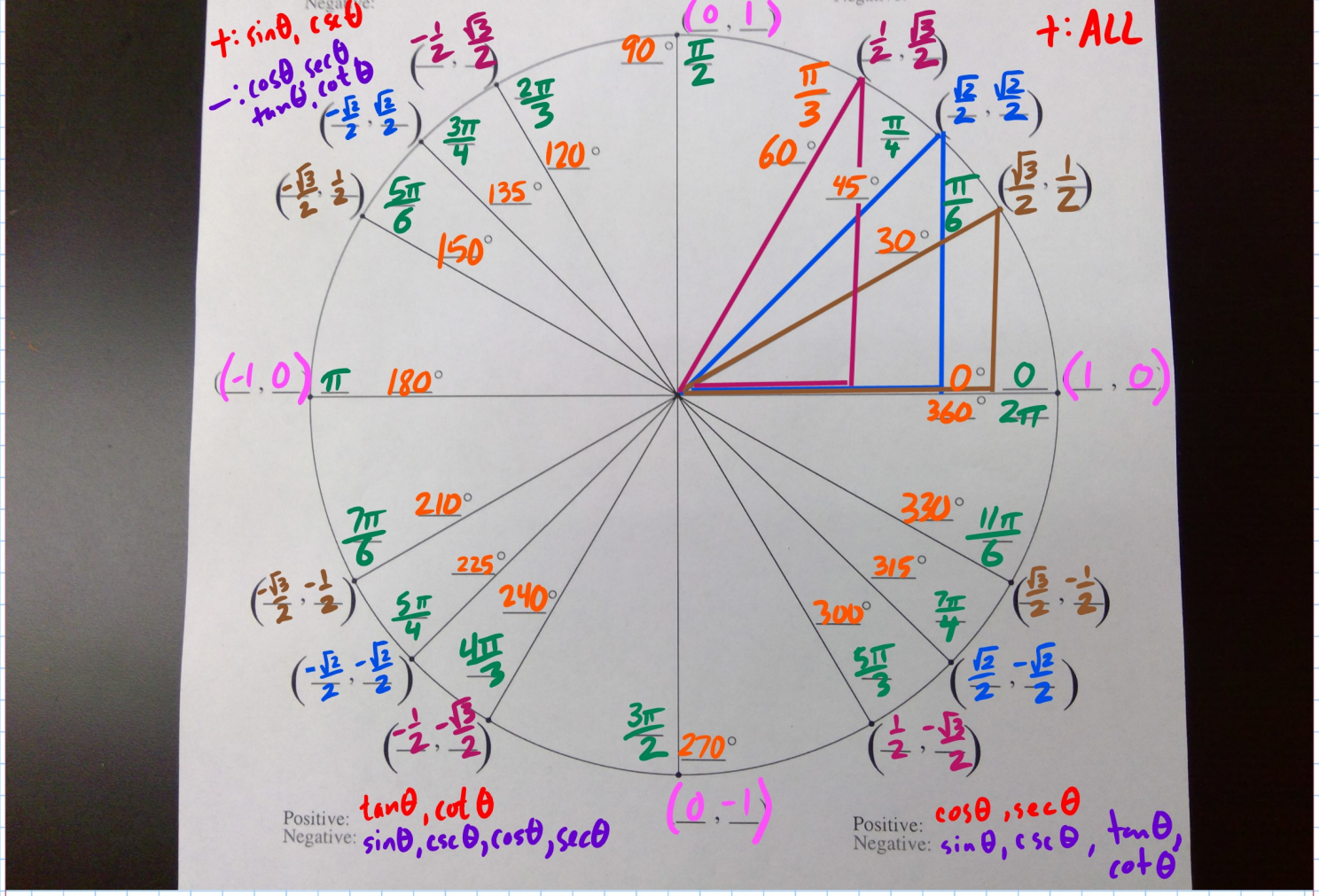
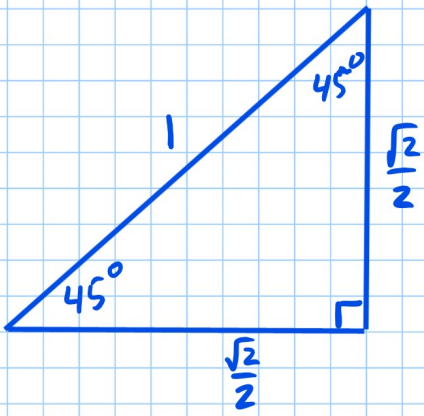


Review of 45°-45°-90°



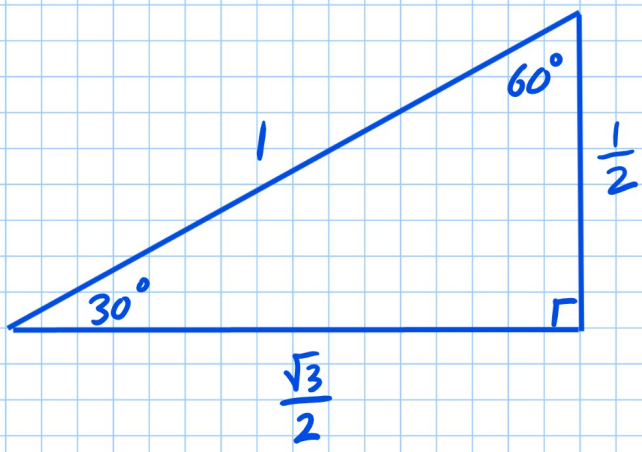
$$x^2 + x^2 = 1^2$$

$$2x^2 = 1$$

$$x^2 = \frac{1}{2}$$

$$x = \sqrt{\frac{1}{2}} = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

Review of 30°-60°-90°



On The Unit Circle

$\sin\theta = y$ $\quad$ $\csc\theta = \frac{1}{y}$

$\cos\theta = x$ $\quad$ $\sec\theta = \frac{1}{x}$

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

Find the 6 trig function values for $\frac{11\pi}{6}$

$\sin\frac{11\pi}{6} = -\frac{1}{2}$ $\quad$ $\csc\theta = -\frac{2}{1} = -2$

$\frac{1}{-\frac{1}{2}} = 1 \cdot -\frac{2}{1} = -2$

$\cos\frac{11\pi}{6} = \frac{\sqrt{3}}{2}$ $\quad$ $\sec\theta = \frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$

$\tan\frac{11\pi}{6} = \frac{-\frac{1}{2}}{\frac{\sqrt{3}}{2}} = -\frac{1}{\cancel{2}}\cdot\frac{\cancel{2}}{\sqrt{3}} = -\frac{1}{\sqrt{3}}\cdot\frac{\sqrt{3}}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$ $\quad$ $\cot\frac{11\pi}{6} = -\frac{\sqrt{3}}{1} = -\sqrt{3}$

$\tan(-210^\circ) = \tan 150^\circ = \frac{\frac{1}{2}}{-\frac{\sqrt{3}}{2}} = \frac{1}{2}\left(-\frac{2}{\sqrt{3}}\right) = -\frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$

not between 0° and 360°
+ or − 360° until it is

$\sec\frac{17\pi}{4} = \sec 765^\circ = \sec 45^\circ = \frac{1}{\frac{\sqrt{2}}{2}} = \frac{2}{\sqrt{2}} \cdot 1 = \frac{2}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$= \frac{2\sqrt{2}}{2} = \sqrt{2}$

$\frac{17\pi}{4} \cdot \frac{180}{\pi}$

765°
-360
405°
-360
45°

$\sin 990^\circ =$

$\csc\frac{4\pi}{3} =$

$\cos\left(-\frac{\pi}{3}\right) =$

$\sec 315^\circ =$

$\tan(-450^\circ) =$

$\cot\frac{23\pi}{6} =$