

# TRIG REVIEW

6 pts. 1) Stick your rotten. . . .

4 pts. 2) + Quadrants - All Star Trig Class

3 pts. 3) opp/adj/hypot  $\left\{ \begin{array}{l} \text{Oscar had. . . .} \\ \text{Soh cah toa} \end{array} \right.$

10 pts. 4) Special Angle Table

$$\sin A = \frac{o}{h}$$

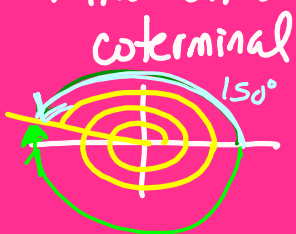
$$\cos A = \frac{a}{h}$$

$$\tan A = \frac{o}{a}$$

Extra Credit: List Fund. Idun + Negative angles,

Omit 5, 11, 17, 18, 1a

1) Find smallest + & - angles



$150^\circ, -210^\circ$

$$\begin{array}{r} 870^\circ \\ -720^\circ \\ \hline 150^\circ \\ \\ 360^\circ \\ -150^\circ \\ \hline 210^\circ \end{array}$$

2/3  $\pi$  rads =  $180^\circ$

Degs  $\rightarrow$  Rads / Rads  $\rightarrow$  Deg

$$200^\circ \cdot \frac{\pi}{180^\circ} = \frac{200}{180} \pi = \frac{10}{9} \pi$$

$$\frac{11\pi}{18} \cdot \frac{180^\circ}{\pi} = 110^\circ$$

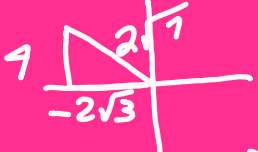
6/ What quadrant?

a)  $\sec \theta > 0$   $\tan \theta < 0$



# \* 7-10 DRAW A PICTURE.

Angle  $\theta$  passes through  $(-2\sqrt{3}, 4)$ . Find  $\sec \theta$ .



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

$$= \frac{2\sqrt{7}}{-2\sqrt{3}} = -\frac{\sqrt{7} \cdot \sqrt{3}}{\sqrt{3} \cdot \sqrt{3}} = \boxed{-\frac{\sqrt{21}}{3}}$$

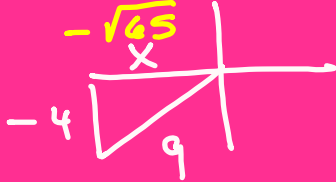
$$(4)^2 + (-2\sqrt{3})^2 = r^2$$

$$16 + 12 = r^2$$

$$\sqrt{28} = \sqrt{r^2}$$

$$\pm 2\sqrt{7} = r$$

8-10 Given  $\csc \theta = -\frac{9}{4}$  and  $\tan \theta > 0$ ,  
find  $\cot \theta$ .



$$\cot \theta = \frac{x}{y} = \frac{-\sqrt{65}}{-4} = \frac{\sqrt{65}}{4}$$

$$x^2 + (-4)^2 = 9^2$$

$$x^2 + 16 = 81$$

$$\sqrt{x^2} = \sqrt{65}$$

$$x = \pm \sqrt{65}$$

## 12 Biggest Points!

$$\csc 210^\circ = \boxed{-2}$$



Check All Star!

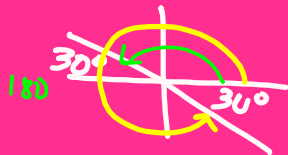
$$\cos \frac{17\pi}{6}$$



$$= \boxed{-\frac{\sqrt{3}}{2}}$$

Find the angles  $0^\circ \leq \theta < 360^\circ$

where  $\tan \theta = -\frac{\sqrt{3}}{3}$

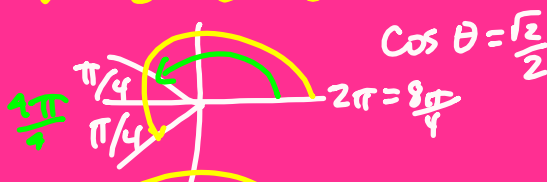


$$\boxed{150^\circ, 330^\circ}$$

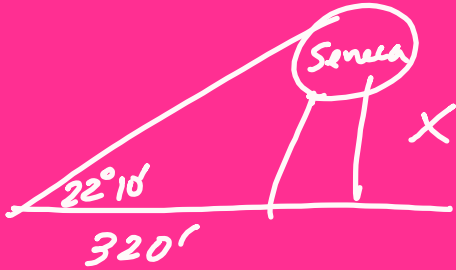
- 1) Find quad.
- 2) Find ref.  $\angle$
- 3) Name angles

Find the angles  $0 \leq \theta < 2\pi$

where  $\sec \theta = -\sqrt{2}$ .



$$\boxed{\frac{3\pi}{4}, \frac{5\pi}{4}}$$



$$320 \cdot \tan 22^\circ 10' = \frac{X}{320} \cdot 320$$

↑ Template Key

$$\tan A = \frac{150}{320}$$
$$\tan^{-1} (150/320)$$