

Warm-up: *after* Reference Triangles Worksheet

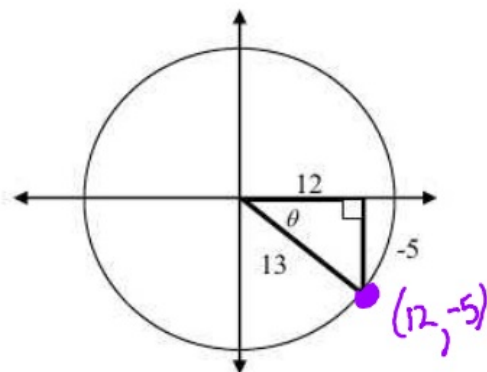
Name: _____
 Period: _____

1)

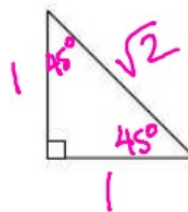
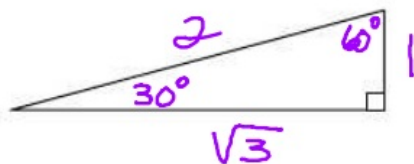
$$\sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{y}{r} = \frac{-5}{13}$$

$$\cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{x}{r} = \frac{12}{13}$$

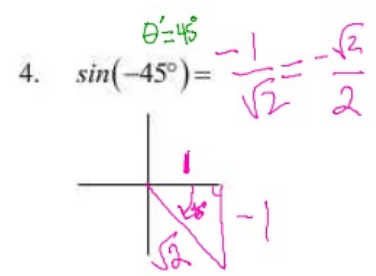
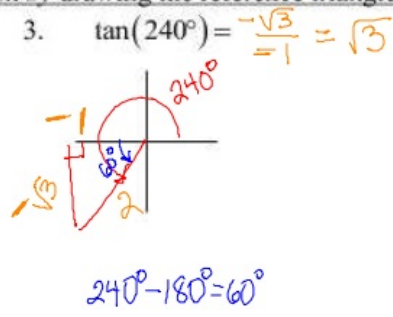
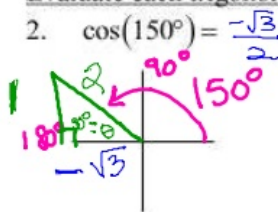
$$\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{y}{x} = \frac{-5}{12}$$



Label all of the sides and angles of the two special triangles.



Evaluate each trigonometric function by drawing the reference triangle.



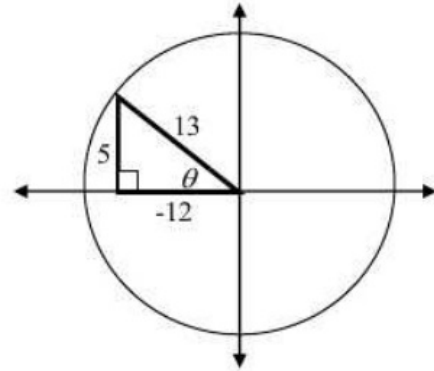
1. Find the following ratios for the angle

The bolded triangle is called the Reference Triangle

$$\sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{y}{r} = \frac{5}{13}$$

$$\cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{x}{r} = \frac{-12}{13}$$

$$\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{y}{x} = \frac{5}{-12}$$



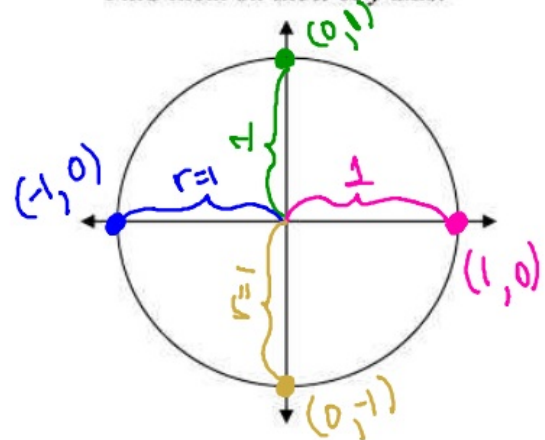
2. The Quadrantal Angles: 0° 90° 180° 270° 360°

Find them on the x or y axis!

$$\sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{y}{r}$$

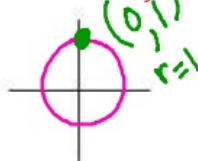
$$\cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{x}{r}$$

$$\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{y}{x}$$

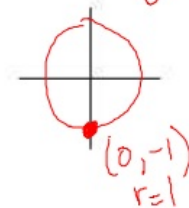
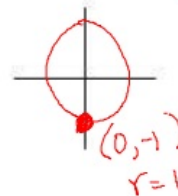


3. Find the following trig ratios:

a) $\sin 0^\circ = \frac{y}{r} = \frac{0}{1} = 0$ b) $\sin 90^\circ = \frac{y}{r} = \frac{1}{1} = 1$



c) $\cos 270^\circ = \frac{x}{r} = \frac{0}{1} = 0$ d) $\tan 270^\circ = \frac{-1}{0} = \text{undef}$



Homework!!

Worksheet: Reference triangles and Quadrantal Angles – Degree measure only
and Page 739: ~~2-18 even~~ 1-17 odd