

Name: _____
Period: _____

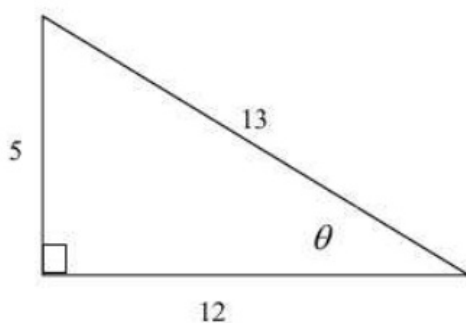
Test Next Time!

Algebra 2

Review for Test #2

A day (Dec 13) B day (Dec 14)

1. Write all 6 trigonometric ratios given the following triangle:

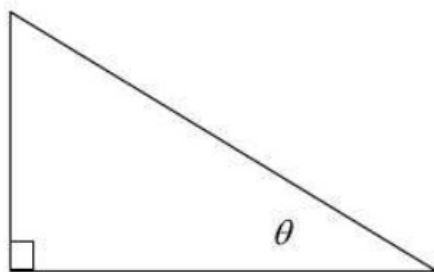


$$\sin(\theta) = \text{---} \quad \csc(\theta) = \text{---}$$

$$\cos(\theta) = \text{---} \quad \sec(\theta) = \text{---}$$

$$\tan(\theta) = \text{---} \quad \cot(\theta) = \text{---}$$

2. In a right triangle, $\csc \theta = \frac{5}{2}$. Find the remaining five trigonometric ratios.



$$\sin(\theta) = \text{---} \quad \csc(\theta) = \text{---}$$

$$\cos(\theta) = \text{---} \quad \sec(\theta) = \text{---}$$

$$\tan(\theta) = \text{---} \quad \cot(\theta) = \text{---}$$

3. Find the following trigonometric ratios for the given angles. Do not use a calculator!

You may find drawing a *reference triangle* helpful.

a) $\cos(150^\circ) =$



b) $\tan(240^\circ) =$



c) $\sin(-45^\circ) =$



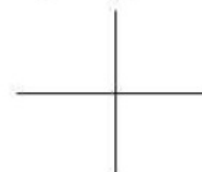
d) $\cos(-150^\circ) =$



e) $\sin(0^\circ) =$

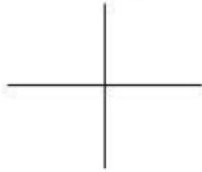


f) $\tan(330^\circ) =$

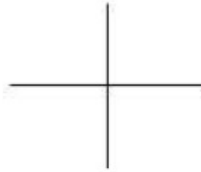


4. Find the following trigonometric ratios for the given angles. Do not use a calculator!
 You may find drawing a *reference triangle* helpful.

a) $\cos(180^\circ) =$



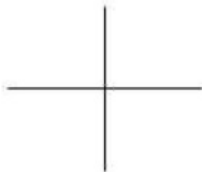
b) $\tan(270^\circ) =$



c) $\sin(-90^\circ) =$



d) $\cos(90^\circ) =$



e) $\sin(0^\circ) =$



f) $\tan(180^\circ) =$



5. If $-90^\circ \leq \theta \leq 90^\circ$ and $\sin \theta = -\frac{\sqrt{2}}{2}$, then $\theta = ?$

- A. 45°
- B. 135°
- C. -45°
- D. -30°

6. If $\tan \theta = -1$, for $180^\circ \leq \theta \leq 360^\circ$ find the exact value for θ .

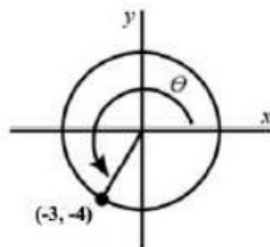
- A. 315°
- B. 225°
- C. 135°
- D. 330°

7. If $\sin \theta > 0$ and $\tan \theta < 0$, then

- A. $0^\circ < \theta < 90^\circ$
- B. $90^\circ < \theta < 180^\circ$
- C. $180^\circ < \theta < 270^\circ$
- D. $270^\circ < \theta < 360^\circ$

8. Find $\tan \theta$, given the point on the circle pictured.

- A. $-\frac{4}{3}$
- B. $-\frac{3}{4}$
- C. $\frac{4}{3}$
- D. $\frac{3}{4}$



9. Which point on the (x, y) on the unit circle corresponds to the real number $\theta = 240^\circ$.

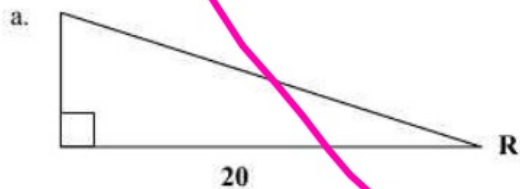
- A. $\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$ C. $\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$
B. $\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$ D. $\left(-\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$

Challenge Problems: This problems are not required to have the assignment completed

10.

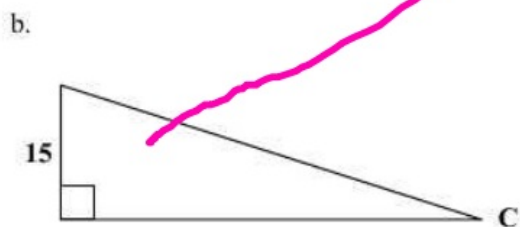
Remember, Pythagorean Theorem is great, but it only works if you know TWO of the sides!

With trig, if we know an angle and ONE side, we can find the other bits of information!!



If $m\angle R = 30^\circ$, find the height of the triangle.

Hint: which trig ratio will you need?



If $m\angle C = 30^\circ$, find the hypotenuse of the triangle.

Hint: which trig ratio will you need?