

REVIEW

UNIT 9 EXAM Part 1 No Calculator

Name _____

Fill in the (x,y) coordinates for the unit circle. Give the angle both in Degrees and Radians

Degrees _____ Radians _____

Now using the unit circle evaluate the following trig functions:

- | | | |
|--|------------------------------|--|
| 1) $\cos(90^\circ) =$ _____ | 2) $\sin(270^\circ) =$ _____ | 3) $\tan\left(\frac{\pi}{6}\right) =$ _____ |
| 4) $\tan\left(\frac{5\pi}{4}\right) =$ _____ | 5) $\sec(45^\circ) =$ _____ | 6) $\sin\left(\frac{9\pi}{2}\right) =$ _____ |

Find the **Reference angle** and the **quadrant** the angle lies in then use that to **evaluate the given trig function**.

- | | | |
|--------------------------------------|----------------------|---------------------------------------|
| 7) $\sin\left(\frac{9\pi}{2}\right)$ | 8) $\cos(270^\circ)$ | 9) $\tan\left(\frac{11\pi}{4}\right)$ |
| 10) $\cos(225^\circ) =$ | | |

REVIEW

Algebra II

Name _____

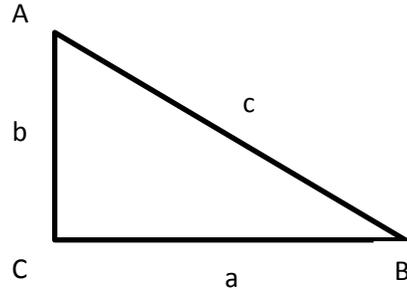
Unit 9 Exam Part 2 w/ Calculator

Period _____ Date _____

Solve the right triangle:

1. $m\angle A = 42^\circ$

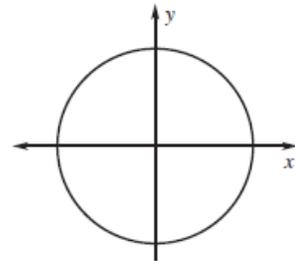
$a = 9$ in



2. Coordinate Point (-5, 12) is on the circle's edge. Find all 6 Trig functions:

Sin = _____ Cos = _____ Tan = _____

Csc = _____ Sec = _____ Cot = _____



3. A crane has a 250 foot arm with a lower end that is on the ground. The arm has a reach to the top of a building that is 100 feet high. At what angle should that arm be set at?

4. The Falls Incline Railway at Niagara Falls has an angle of elevations of 24° . The railway extends a horizontal distance of about 600 feet. Find the height and length of the railway.