

Angle Measures and Intro to Trig Homework

Date _____ Period _____

Convert each decimal degree measure into degrees-minutes-seconds.

1) 133.7375°

2) 192.8775°

Convert each degrees-minutes-seconds into decimal degrees.

3) $324^\circ 47' 24''$

4) $260^\circ 18' 18''$

Convert each degree measure into radians.

5) 745°

6) 135°

Convert each radian measure into degrees.

7) $\frac{13\pi}{9}$

8) $\frac{13\pi}{18}$

Find the length of each arc.

9) $r = 15 \text{ yd}, \theta = 300^\circ$

10) $r = 19 \text{ yd}, \theta = 90^\circ$

Evaluate the remaining trigonometric functions when...

11) $\sin \theta = \frac{5}{6}$

12) $\tan \theta = \frac{6}{5}$

$\sin \theta =$

$\csc \theta =$

$\sin \theta =$

$\csc \theta =$

$\cos \theta =$

$\sec \theta =$

$\cos \theta =$

$\sec \theta =$

$\tan \theta =$

$\cot \theta =$

$\tan \theta =$

$\cot \theta =$

13) $\sec \theta = 3$

$\sin \theta =$

$\cos \theta =$

$\tan \theta =$

$\csc \theta =$

$\sec \theta =$

$\cot \theta =$

14) $\csc \theta = \frac{5}{3}$

$\sin \theta =$

$\cos \theta =$

$\tan \theta =$

$\csc \theta =$

$\sec \theta =$

$\cot \theta =$

15) $\cot \theta = \frac{\sqrt{2}}{5}$

$\sin \theta =$

$\cos \theta =$

$\tan \theta =$

$\csc \theta =$

$\sec \theta =$

$\cot \theta =$

16) $\sin \theta = \frac{\sqrt{5}}{5}$

$\sin \theta =$

$\cos \theta =$

$\tan \theta =$

$\csc \theta =$

$\sec \theta =$

$\cot \theta =$

Use a calculator to find each. Round your answers to the nearest thousandth.

17) $\cos 700^\circ$

18) $\tan \frac{47\pi}{60}$

19) $\csc 850^\circ$

20) $\sec \frac{103\pi}{180}$

In each problem, angle C is a right angle. Solve each triangle rounding answers to the nearest thousandth.

21) $m\angle B = 24^\circ$, $a = 14$

22) $c = 9$, $b = 5$

23) $b = 9$, $m\angle B = 70^\circ$

24) $a = 10.6$, $b = 3$