

# Algebra 2 Bellwork Friday, February 27, 2015

Find both a positive and a negative coterminal angle for each given angle. Give your answer in the same form as the given angle.

1.  $2645^\circ$

Pos:

Neg:

2.  $-\frac{19\pi}{5}$

Pos:

Neg:

3.  $-978^\circ$

Pos:

Neg:

4.  $\frac{31\pi}{11}$

Pos:

Neg:

Find an angle between  $0^\circ$  and  $360^\circ$  that is coterminal to each given angle.

5.  $842^\circ$

6.  $-1758^\circ$

Find an angle between 0 and  $2\pi$  that is coterminal to each given angle.

7.  $\frac{23\pi}{9}$

8.  $-\frac{57\pi}{14}$

Find the value of each to the nearest hundredth.

9.  $\cos 77^\circ$

10.  $\tan \frac{13\pi}{11}$

11.  $\sin(-570^\circ)$

In which quadrant, or on which axis does the terminal side of each angle lie?

12.  $-580^\circ$

13.  $990^\circ$

14.  $\frac{40\pi}{7}$

15.  $-17\pi$

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**Answers**

Find both a positive and a negative coterminal angle for each given angle. Give your answer in the same form as the given angle. **ONLY A FEW OF MANY ANSWERS IS GIVEN**

1.  $2645^\circ$

Pos:  $2285^\circ, 3005^\circ, \dots$  Neg:  $-235^\circ, \dots$

2.  $-\frac{19\pi}{5}$

Pos:  $\frac{\pi}{5}, \frac{11\pi}{5}, \dots$  Neg:  $-\frac{9\pi}{5}, -\frac{29\pi}{5}, \dots$

3.  $-978^\circ$

Pos:  $102^\circ, 462^\circ, \dots$  Neg:  $-1338^\circ, -618^\circ, \dots$

4.  $\frac{31\pi}{11}$

Pos:  $\frac{9\pi}{11}, \frac{53\pi}{11}, \dots$  Neg:  $-\frac{13\pi}{11}, -\frac{35\pi}{11}, \dots$

Find an angle between  $0^\circ$  and  $360^\circ$  that is coterminal to each given angle.

5.  $842^\circ$   $122^\circ$

6.  $-1758^\circ$   $42^\circ$

Find an angle between 0 and  $2\pi$  that is coterminal to each given angle.

7.  $\frac{23\pi}{9}$   $5\pi/9$

8.  $-\frac{57\pi}{14}$

~~$27\pi/14$~~   $27\pi/14$

Find the value of each to the nearest hundredth.

9.  $\cos 77^\circ$

$0.22$

10.  $\tan \frac{13\pi}{11}$

$0.64$

11.  $\sin(-570^\circ)$

$0.5$

In which quadrant, or on which axis does the terminal side of each angle lie?

12.  $-580^\circ \rightarrow 140^\circ$

Quad II

13.  $990^\circ \rightarrow 270^\circ$

Neg y-axis

14.  $\frac{40\pi}{7} \rightarrow \frac{12\pi}{7}$

Quad IV

15.  $-17\pi \rightarrow \pi$

Neg x-axis