

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Instructions:** Please complete the following problems. Each answer is associated with a letter that creates a secret phrase (hint: a somewhat illegal Georgia Tech tradition). You can find the key on the last page.

**Problem 1.** Convert  $-64^\circ$  to radians.

**Problem 2.** Convert  $120^\circ$  to radians.

**Problem 3.** Convert  $\frac{5\pi}{12}$  to degrees.

**Problem 4.** Convert  $-\frac{\pi}{3}$  to degrees.

**Problem 5.** Find the angle between 0 and  $2\pi$  radians that is coterminal with  $-\frac{\pi}{4}$  radians

**Problem 6.** Find the angle between 0 and  $360^\circ$  that is coterminal with  $400^\circ$

**Problem 7.** Find the complement of  $60^\circ$

**Problem 8.** Find the supplement of  $35^\circ$

**Problem 9.** Find the arc length of two points on a circle where the radius is  $r = 7$  inches and the angle the two points create is  $\theta = \frac{\pi}{2}$

**Problem 10.** If  $\theta = \frac{1}{3}$  radians,  $s = 7$  centimeters, what is  $r = ?$

**Problem 11.** What is the area of a sector if  $\theta = 5$  radians,  $r = 12$  centimeters?

**Problem 12.** Solve the word problem: If you eat a slice of pizza with a diameter of 10 inches and the slice makes a  $45^\circ$  angle. How many square inches of pizza did you eat?

A	$-60^\circ$
B	Yes
C	0
D	False
E	$75^\circ$
E	$360 \text{ cm}^2$
G	$145^\circ$
H	$21 \text{ cm}$
I	$40^\circ$
J	$90^\circ$
K	$180^\circ$
L	$\frac{7\pi}{4}$
M	$\frac{\sqrt{2}}{2}$
N	$30^\circ$
O	$\frac{\sqrt{3}}{2}$
P	$0, 1, 0, \text{und}, 1, \text{und}$
Q	$2\pi$
R	$\frac{3\pi}{2}$
S	$-\frac{16\pi}{45}$
T	$\frac{2\pi}{3}$
T	$\frac{7\pi}{2}$
T	$\frac{25\pi}{8} \text{ in}^2$
U	$5 \text{ cm}$
V	True
W	$300 \text{ cm}^2$
X	$-1, 0, \text{und}, -1, \text{und}, 0$
Y	$\pi$
Z	No

What was the phrase you found?

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