

Trigonometry

Name _____

PreTest

Date _____ Period _____

State the quadrant in which the terminal side of each angle lies.

1) 230°

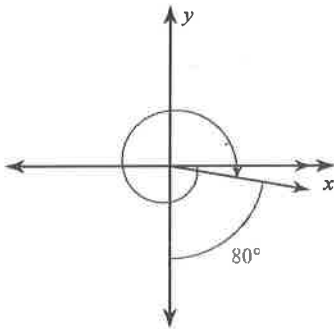
- A) I B) II
C) III D) IV

2) 160°

- A) I B) IV
C) II D) III

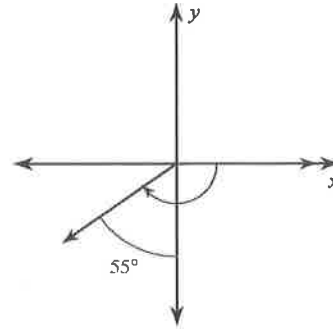
Find the measure of each angle.

3)



- A) -640° B) -355°
C) -460° D) -370°

4)



- A) -235° B) -305°
C) -145° D) -155°

State if the given angles are coterminal.

5) $130^\circ, 30^\circ$

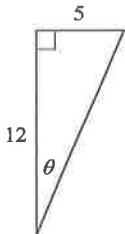
- A) Yes B) No

6) $145^\circ, 505^\circ$

- A) Yes B) No

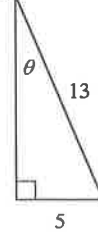
Find the value of the trig function indicated.

7) $\sec \theta$



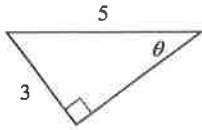
- A) $\frac{12}{5}$ B) $\frac{5}{13}$
C) $\frac{13}{12}$ D) $\frac{5}{12}$

8) $\cos \theta$



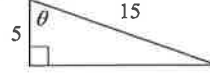
- A) $\frac{12}{5}$ B) $\frac{5}{12}$
C) $\frac{12}{13}$ D) $\frac{13}{12}$

9) $\csc \theta$



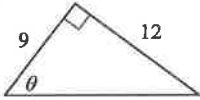
- A) $\frac{5}{4}$ B) $\frac{5}{3}$
C) $\frac{3}{4}$ D) $\frac{4}{5}$

10) $\cot \theta$



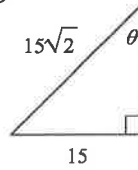
- A) 3 B) $\frac{\sqrt{2}}{4}$
C) $2\sqrt{2}$ D) $\frac{3\sqrt{13}}{13}$

11) $\sin \theta$



- A) $\frac{5}{4}$ B) $\frac{4}{5}$
C) $\frac{3}{5}$ D) $\frac{5}{3}$

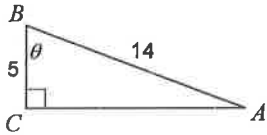
12) $\csc \theta$



- A) 1 B) $\frac{\sqrt{15}}{8}$
C) $\frac{\sqrt{2}}{2}$ D) $\sqrt{2}$

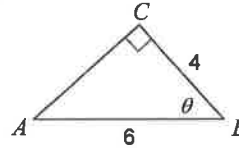
Find the measure of each angle indicated. Round to the nearest tenth.

13)



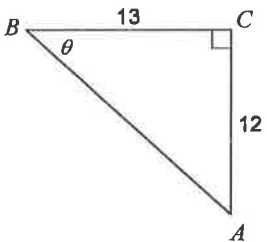
- A) 69.1° B) 62.2°
C) 53.9° D) 66.9°

14)



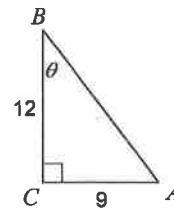
- A) 56.2° B) 60.1°
C) 39.4° D) 48.2°

15)



- A) 49.6° B) 52.1°
C) 42.7° D) 44.9°

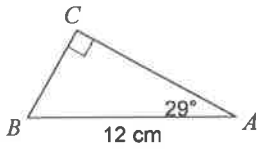
16)



- A) 39.8° B) 39.3°
C) 36.9° D) 44.9°

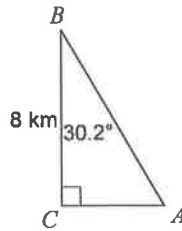
Solve each triangle. Round answers to the nearest tenth.

17)



- A) $m\angle B = 61^\circ$, $b = 10.5$ cm, $a = 4.8$ cm
 B) $m\angle B = 61^\circ$, $b = 10.5$ cm, $a = 5.8$ cm
 C) $m\angle B = 61^\circ$, $b = 10.5$ cm, $a = 4.4$ cm
 D) $m\angle B = 61^\circ$, $b = 11.2$ cm, $a = 5.8$ cm

18)



- A) $m\angle A = 59.8^\circ$, $b = 4$ km, $c = 9.3$ km
 B) $m\angle A = 59.8^\circ$, $b = 4.4$ km, $c = 9.3$ km
 C) $m\angle A = 59.8^\circ$, $b = 4.7$ km, $c = 9$ km
 D) $m\angle A = 59.8^\circ$, $b = 4.7$ km, $c = 9.3$ km

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

19) $\cos 120^\circ$

- A) -0.5000 B) 1.1547
 C) Undefined D) 0.0523

20) $\cos -290^\circ$

- A) -0.7547 B) -0.6494
 C) 0.9397 D) 0.3420

21) $\tan 115^\circ$

- A) 0.5774 B) -0.4226
 C) -2.1445 D) 0.1763

22) $\tan 147^\circ$

- A) -0.6494 B) 2.6051
 C) Undefined D) 1.7321

Find the exact value of each trigonometric function.

23) $\sec 210^\circ$

- A) -1 B) $\frac{\sqrt{3}}{3}$
 C) Undefined D) $-\frac{2\sqrt{3}}{3}$

24) $\cos -30^\circ$

- A) $\frac{\sqrt{3}}{2}$ B) $\frac{\sqrt{2}}{2}$
 C) $\frac{2\sqrt{3}}{3}$ D) $-\sqrt{3}$

25) $\sec 30^\circ$

- A) $\sqrt{2}$ B) $\frac{2\sqrt{3}}{3}$
 C) $\frac{1}{2}$ D) -1

26) $\sin -225^\circ$

- A) $-\frac{\sqrt{2}}{2}$ B) $\frac{\sqrt{2}}{2}$
 C) 0 D) $-\sqrt{2}$

