

## Review Topic #8: Trigonometry

Date \_\_\_\_\_

**CP: 1 - 5 only Honors and VT all: Find the exact value of each trigonometric function WITHOUT CALCULATORS.**

1)  $\csc 330^\circ$

2)  $\tan -60^\circ$

3)  $\sec -45^\circ$

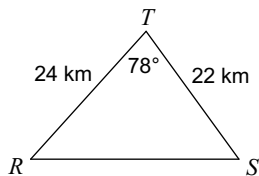
4)  $\csc \frac{3\pi}{2}$

5)  $\sin \frac{7\pi}{4}$

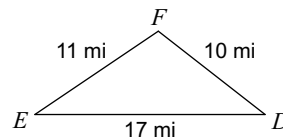
6)  $\cot -\frac{\pi}{3}$

**Solve each triangle using law of sines or cosines. Round your answers to the nearest tenth.**

7)



8)



**State the number of possible triangles that can be formed using the given measurements.**

9) In  $\triangle CAB$ ,  $m\angle C = 151^\circ$ ,  $b = 31$  ft,  $c = 29$  ft

10) In  $\triangle ZXY$ ,  $m\angle Z = 20^\circ$ ,  $y = 35$  m,  $z = 33$  m

**Law of Sines & Cosines: Solve each triangle. Round your answers to the nearest tenth.**

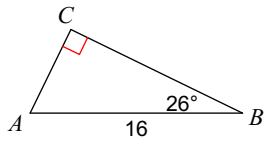
11) In  $\triangle STR$ ,  $m\angle S = 48^\circ$ ,  $r = 24$  cm,  $s = 22$  cm

12) In  $\triangle ABC$ ,  $m\angle A = 122^\circ$ ,  $m\angle C = 21^\circ$ ,  $b = 32$  m

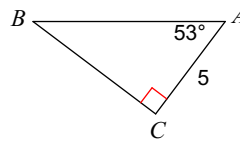
13) In  $\triangle RPQ$ ,  $m\angle R = 91^\circ$ ,  $q = 29$  km,  $r = 32$  km

Solve each triangle using SOHCAHTOA. Round answers to the nearest tenth.

14)

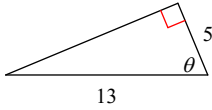


15)

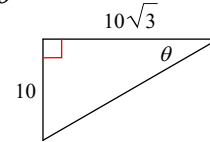


Find the value of the trig function indicated.

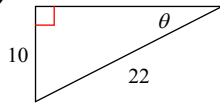
16)  $\tan \theta$



17)  $\cot \theta$

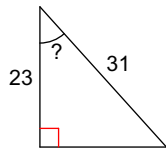


18)  $\csc \theta$

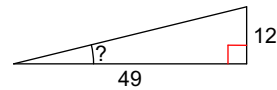


Find the measure of the indicated angle to the nearest degree.

19)



20)



## Answers to Review Topic #8: Trigonometry (ID: 1)

- 1)  $-2$                       2)  $-\sqrt{3}$                       3)  $\sqrt{2}$                       4)  $-1$   
5)  $-\frac{\sqrt{2}}{2}$                       6)  $-\frac{\sqrt{3}}{3}$                       7)  $m\angle R = 48^\circ, m\angle S = 54^\circ, t = 29 \text{ km}$   
8)  $m\angle E = 34^\circ, m\angle F = 108^\circ, m\angle D = 38^\circ$                       9) None                      10) Two triangles  
11)  $m\angle T = 77.8^\circ, m\angle R = 54.2^\circ, t = 28.9 \text{ cm}$   
    *Or*  $m\angle T = 6.2^\circ, m\angle R = 125.8^\circ, t = 3.2 \text{ cm}$   
12)  $m\angle B = 37^\circ, c = 19.1 \text{ m}, a = 45.1 \text{ m}$   
13)  $m\angle P = 24^\circ, m\angle Q = 65^\circ, p = 13 \text{ km}$                       14)  $m\angle A = 64^\circ, a = 14.4, b = 7$   
15)  $m\angle B = 37^\circ, a = 6.6, c = 8.3$                       16)  $\frac{12}{5}$                       17)  $\sqrt{3}$   
18)  $\frac{11}{5}$                       19)  $42^\circ$                       20)  $14^\circ$