

STEM Trig

Name _____

Skills Check 1 - Semester 1

Date _____ Class _____

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

1) $\cos 120^\circ$

- A) -0.9563
- B) -0.5000
- C) -1.7321
- D) -2.0000

2) $\sin 323^\circ$

- A) 1.2521
- B) -0.6018
- C) 0.3256
- D) -0.7536

$\sin(30) = 0.5$

Find each angle measure to the nearest degree.

3) $\sin A = 0.6428$

- A) 38°
- B) 0.01°
- C) 40°
- D) 1°

$\sin^{-1}(0.6428)$

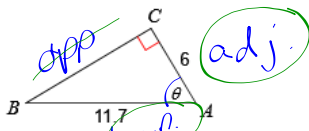
4) $\cos Y = 0.5736$

- A) 0.01°
- B) 1°
- C) 83°
- D) 55°

When you need an angle, use the inverse.

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

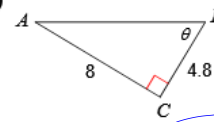
5)



- A) 69.3°
- B) 63.5°
- C) 59.1°
- D) 67°

$\cos \theta = \frac{6}{11.7} \Rightarrow 59.1$

6)



- A) 42.2°
- B) 59°
- C) 45.6°
- D) 70.7°

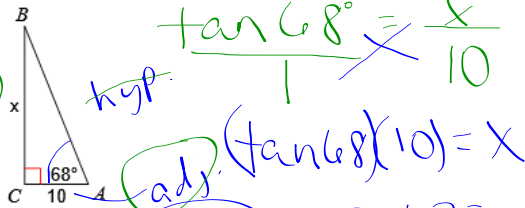
Try

$\tan \theta = \frac{8}{4.8}$

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

SOH CAH TOA

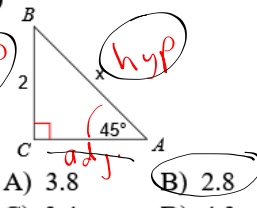
7)



- A) 25.5
- B) 24.8
- C) 20.9
- D) 19.4

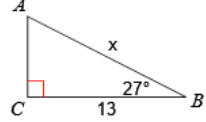
$\tan 68^\circ = \frac{x}{10}$
 $(\tan 68)(10) = x$
 $24.75 = x$

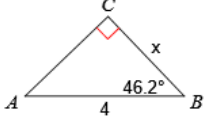
8)



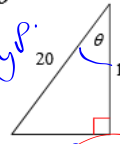
- A) 3.8
- B) 2.8
- C) 3.4
- D) 4.3

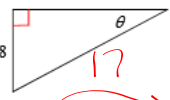
$\sin 45^\circ = \frac{2}{x}$
 $(\sin 45)(x) = 2$
 $\frac{2}{\sin 45} = x$

9) 
 A) 14.6 B) 15.7
 C) 18.9 D) 15.4

10) 
 A) 2.1 B) 2.8
 C) 2.5 D) 1.4

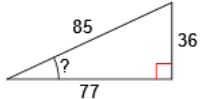
Find the value of the trig function indicated.

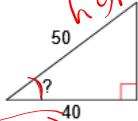
11) $\tan \theta$  $16^2 + x^2 = 20^2$
 $x^2 = 144$
 $x = 12$
 $\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{12}{16} = \frac{3}{4}$
 A) $\frac{5}{3}$ B) $\frac{3}{4}$ (circled)
 C) $\frac{4}{3}$ D) $\frac{7}{25}$

12) $\cos \theta$ 
 A) $\frac{17}{15}$ B) $\frac{15}{17}$ (circled)
 C) $\frac{15}{8}$ D) $\frac{8}{15}$

triples
 8, 15, 17
 3, 4, 5
 5, 12, 13
 $\cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{15}{17}$

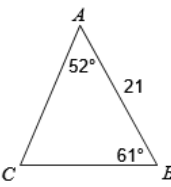
Find the measure of the indicated angle to the nearest degree.

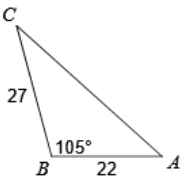
13) 
 A) 65° B) 23°
 C) 25° D) 28°

14) 
 A) 37° (circled) B) 53°
 C) 31° D) 59°

$\sin ? = \frac{30}{50}$
 $\sin^{-1}(\frac{30}{50})$

Find each measurement indicated. Round your answers to the nearest tenth.

15) Find AC 
 A) 23 B) 19
 C) 21 D) 20

16) Find $m\angle C$ 
 A) 34° B) 30°
 C) 33° D) 32°

Answers to Skills Check 1 - Semester 1

1) B
5) C
9) A
13) C

2) B
6) B
10) B
14) A

3) C
7) B
11) B
15) D

4) D
8) B
12) B
16) C