Secondary Math 2   Name_____

Unit 8 Review   Date_____ Period_____

Label the sides of the triangle in relation to the angle.
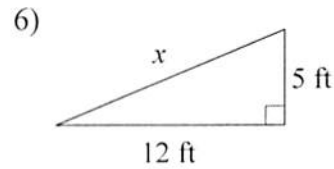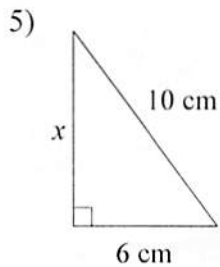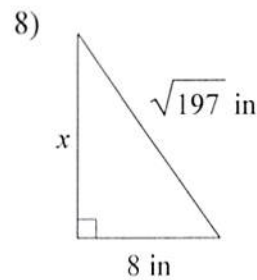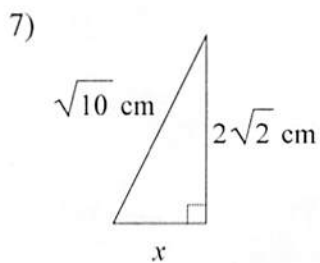
1)

2)

3)

4)
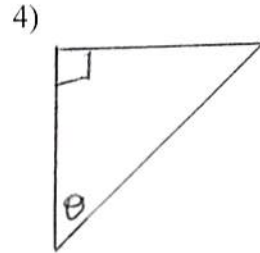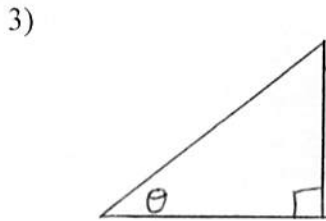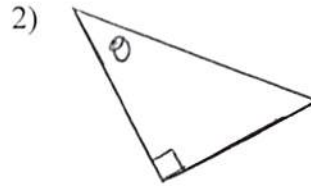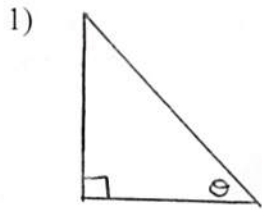
Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.
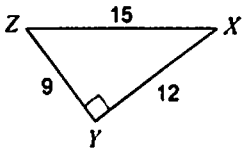
5)

10 cm

x

6 cm

6)

x

5 ft

12 ft

Find the missing side of each triangle. Leave your answers in simplest radical form.

7)

$\sqrt{10}$ cm

$2\sqrt{2}$ cm

x

8)

$\sqrt{197}$ in

x

8 in

Find the value of all the trigonometric ratios.

9) $\sin X$

Z — 15 — X
9, 12, Y (right angle at Y)

10) $\cos Z$

X — 39 — Z
15, 36, Y (right angle at Y)

11) $\cos Z$

Y (right angle), 30, 16
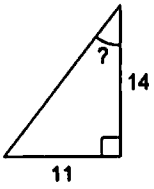Z — 34 — X
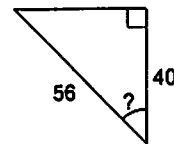
12) $\cos A$

A — 45 — C
27, 36, B (right angle at B)
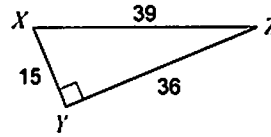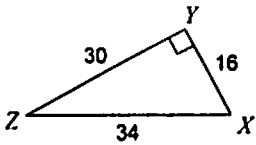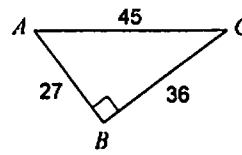
Find the measure of the indicated angle to the nearest degree.

13)

? , 14, 11

14)

56, 40, ?

15)

?, 42, 12

16)
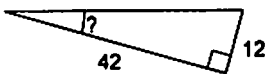
22, 46, ?
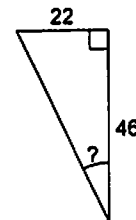
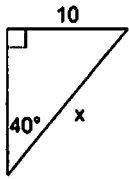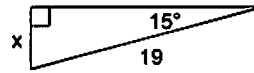**Find the missing side. Round to the nearest tenth.**

17)

10

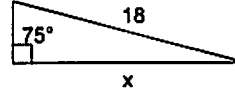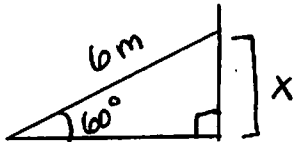40°   x

18)

15°
x
19

19)

x
28°
19

20)

18
75°
x
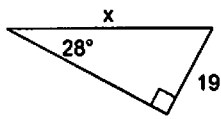
21) A six-meter-long ladder leans against a building. If the ladder makes an angle of 60° with the ground, how far up the wall does the ladder reach? Round your answers to two decimal places, as needed.

6 m
60°
X

22) A five-meter-long ladder leans against a wall, with the top of the ladder being four meters above the ground. What is the approximate angle that the ladder makes with the ground?

5 m
θ
4 m
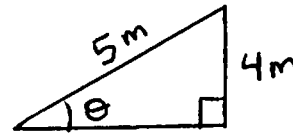
23) A boy flying a kite lets out 300 feet of string which makes an angle of 38° with the ground. Assuming that the string is straight, how high above the ground is the kite?

300 ft
38°
X
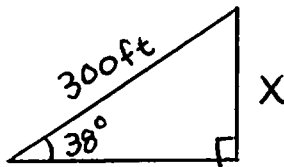
24) A driveway is built on an incline so that it rises 2 meters over a distance of 20 meters. What is the degree measure of the slope of the driveway?

20 m
θ
2 m