Ms. Mougharbel

Name_____

Geometry - Homework 5 - Spring

Date_____ Period_____

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

1)

29 m

32 m

x

2)

x

73 mi

96 mi
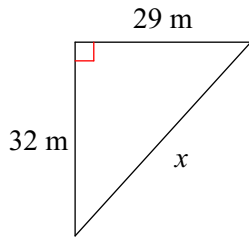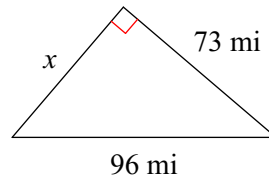
Find the missing side of each right triangle. Side c is the hypotenuse. Sides a and b are the legs. Leave your answers in simplest radical form.

3) $b = 67$ cm, $c = 90$ cm

4) $a = \sqrt{2705}$ m, $c = 83$ m

5) $a = 76$ yd, $b = 77$ yd

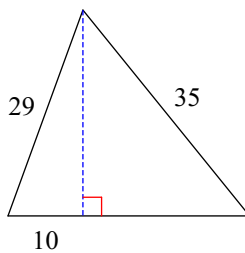6) $a = 35$ in, $c = 69$ in

7) $a = 3\sqrt{7}$ km, $b = \sqrt{46}$ km

State if the three side lengths form an acute, obtuse, or right triangle.
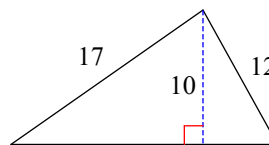
8) 44 in, $\sqrt{7089}$ in, 95 in

9) $\sqrt{527}$ yd, $\sqrt{4097}$ yd, 73 yd

Find the area of each triangle. Round intermediate values to the nearest tenth. Use the rounded values to calculate the next value. Round your final answer to the nearest tenth.
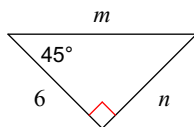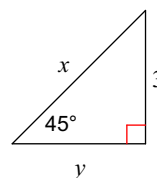
10)

29

35

10

11)

17

10

12

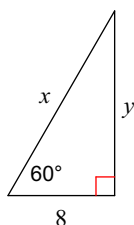**Find the missing side lengths. Leave your answers as radicals in simplest form.**

12)

m

45°

6

n

13)

x

3

45°

y

14)

x

y

60°

8

15)

a

30°

$\dfrac{3\sqrt{3}}{2}$

b
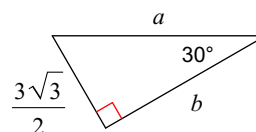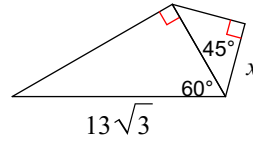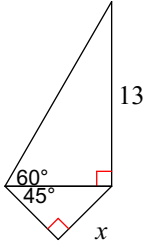
16)
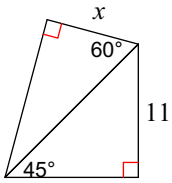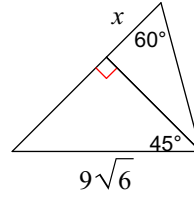

17)
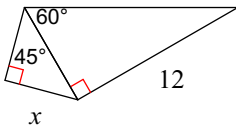

18)

19)

20)

Find the value of each trigonometric ratio to the nearest ten-thousandth.

21) $\tan 37°$

22) $\tan 47°$

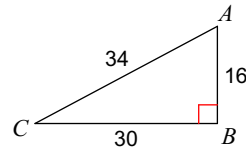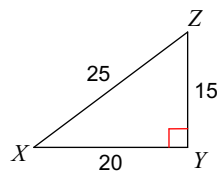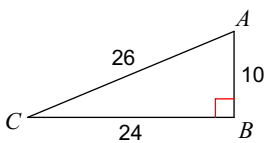23) $\sin 20°$

24) $\tan 83°$

25) $\tan 70°$

26) $\sin C$

27) $\tan C$

28) $\tan X$

29) $\cos C$

30) $\cos X$

Made with Infinite Geometry.
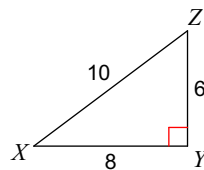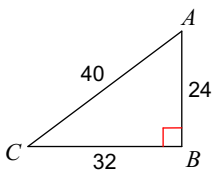
Answers to Geometry - Homework 5 - Spring

1) $\sqrt{1865}$ m

3) $\sqrt{3611}$ cm

5) $\sqrt{11705}$ yd

7) $\sqrt{109}$ km

9) Obtuse

11) 101.5

13) $x = 3\sqrt{2},\ y = 3$

15) $a = 3\sqrt{3},\ b = \dfrac{9}{2}$

17) $\dfrac{13\sqrt{6}}{4}$

19) 9

21) 0.7536

23) 0.3420

25) 2.7475

27) 0.4167

29) 0.8000