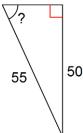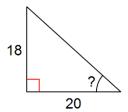**Name** _____ **Hour** _____

Find the measure of the indicated angle. Round answers to the nearest hundredth. Diagrams may not be drawn to scale.

(It may be helpful to label the sides of the right triangle using the indicated angle as *hypotenuse*, *opposite*, and *adjacent* in order to determine which trigonometric ratio can be used with the given information.)
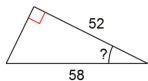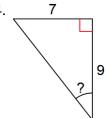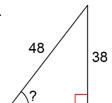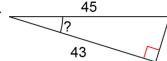
1.

55   50

?

2.

18

? 20

3.

52

? 58

4.

7

9

?

5.

48   38

?

6.

45

? 43

7.

22

29

?

8.

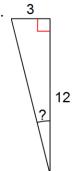6   ? 18

9.

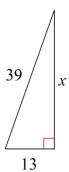11

? 26

10.

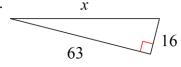7   15

?

11.
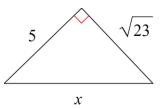
34

? 60

12.

3

12

?

Inverse Trigonometric Ratios

Find the unknown side length. Write answers in the simplest radical form.
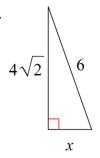
13.

39 x

13

14.

x

63 16

15.

5 $\sqrt{23}$

x

16.

$4\sqrt{2}$ 6

x

17.

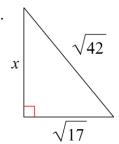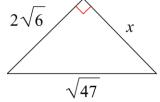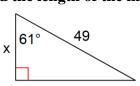$\sqrt{42}$
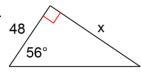
x

$\sqrt{17}$

18.

$2\sqrt{6}$ x

$\sqrt{47}$

Find the length of the indicated side. Round answers to the nearest hundredth.

19.

$61°$ 49

x

20.

48 x

$56°$

21.

27

$38°$ x

22.

$74°$

x

50

23.

x

$27°$

42

24.

x

$15°$

38