Name _____ Key _____ Date _____

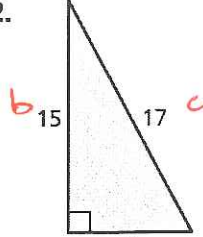**7.3** **Practice**
For use after Lesson 7.3

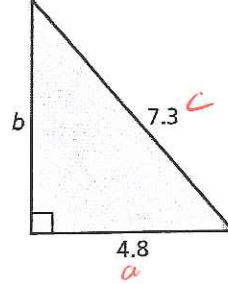**Find the missing length of the triangle.**

1.

28 | c
21
(right angle)
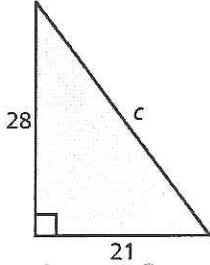
$a^2 + b^2 = c^2$
$21^2 + 28^2 = c^2$
$441 + 784 = c^2$
$\sqrt{1225} = \sqrt{c^2}$
$35 = c$

2.

b 15 | 17 c
a (right angle)

$a^2 + b^2 = c^2$
$a^2 + 15^2 = 17^2$
$a^2 + 225 = 289$
$-225 \quad -225$
$\sqrt{a^2} = \sqrt{64}$
$a = 8$

3.

b | 7.3 c
4.8
a (right angle)

$a^2 + b^2 = c^2$
$4.8^2 + b^2 = 17.3^2$
$23.04 + b^2 = 53.29$
$-23.04 \qquad -23.04$
$\sqrt{b^2} = \sqrt{30.25}$
$b = 5.5$

Find the missing length of the figure.

4.

16
x
63
16 cm
63 cm
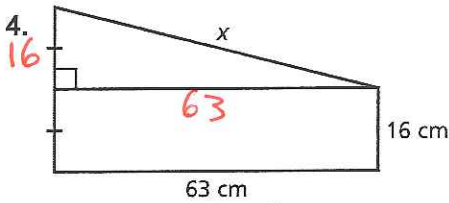
$a^2 + b^2 = c^2$
$63^2 + 16^2 = c^2$
$3969 + 256 = c^2$
$\sqrt{4225} = \sqrt{c^2}$
$65 = c$
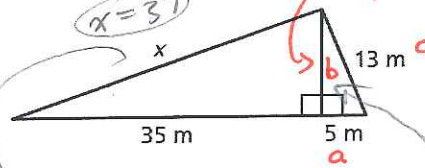
5.

x = 37

Find this First

x | 13 m c
35 m | 5 m
b
a

$a^2 + b^2 = c^2$
$35^2 + 12^2 = c^2$
$1225 + 144 = c^2$
$\sqrt{1369} = \sqrt{c^2}$
$37 = c$

$a^2 + b^2 = c^2$
$5^2 + b^2 = 13^2$
$25 + b^2 = 169$
$-25 \qquad -25$
$\sqrt{b^2} = \sqrt{144}$
$b = 12$

6. In wood shop, you make a bookend that is in the shape of a right triangle. What is the base b of the bookend?

8 in. | 10 in.
b

$a^2 + b^2 = c^2$
$8^2 + b^2 = 10^2$
$64 + b^2 = 100$
$-64 \qquad -64$
$\sqrt{b^2} = \sqrt{36}$
$b = 6$

The base is 6 inches.