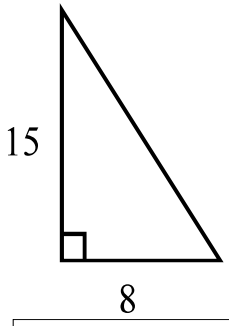
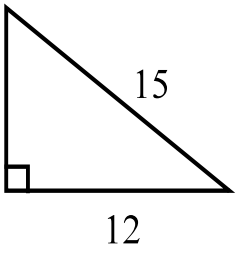
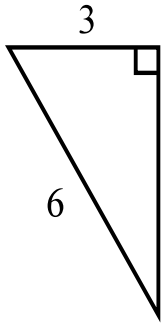
Pythagorean Theorem 3 (KEY)

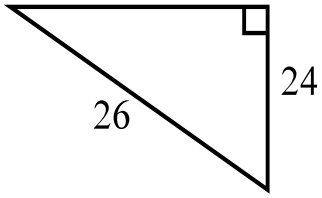
Geometry

Use the Pythagorean Theorem to find the missing lengths in these right triangles. Put answers in simplest radical form and to the nearest tenth, if the answer isn't a whole number.

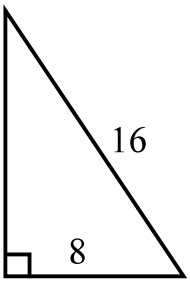
1) 

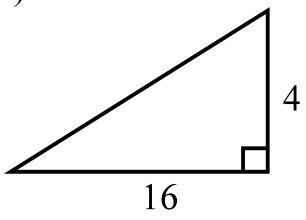
2) 

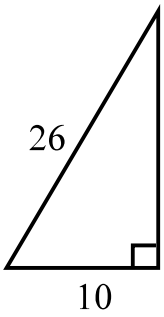
3) 

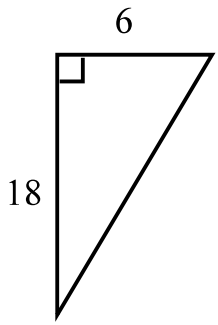
4) 

C = 17 B = 9 A = $3\sqrt{3}$ = 5.2 B = 10

5) 

6) 

7) 

8) 

A = $8\sqrt{3}$ = 13.9 C = $4\sqrt{17}$ = 16.5 B = 24 C = $6\sqrt{10}$ = 19.0

Using the information about the triangle to the right with sides a, b, c find the missing length.

9) a = 24, b = ?, c = 74

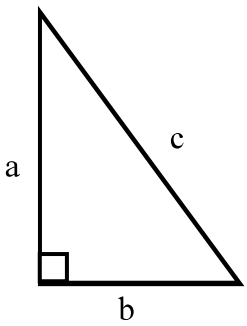
10) a = 6, b = 9, c = ?

B = 70 C = $3\sqrt{13}$ = 10.8

11) a = ?, b = 13, c = 15

12) a = 7, b = 24, c = ?

A = $2\sqrt{14}$ = 7.5 C = 25



13) a = 12, b = ?, c = 15

14) a = ?, b = 12, c = 20

B = 9 A = 16

15) a = 9, b =?, c = 17

16) a = 11, b = 3, c = ?

B = $4\sqrt{13}$ = 14.4 C = $\sqrt{130}$ = 11.4

Can these measurements be the lengths of the sides of a right triangle? If not, is the triangle obtuse or acute?

17) 13, 11, and 7

No. It is Acute

18) 12, 5, and 13

Yes

19) 63, 65, and 16

Yes

20) 16, 34, and 30

Yes

21) 17, 11, and 20

No. It is Acute

22) 11, 15, and 10

No. It is Obtuse.