

Pythagoras' Theorem *fluency*



a and b are the shorter sides. Find the hypotenuse c.

- 1 $a = 6 \text{ cm}, b = 8 \text{ cm}$ 2 $a = 5 \text{ cm}, b = 12 \text{ cm}$ 3 $a = 9 \text{ cm}, b = 12 \text{ cm}$
4 $a = 8 \text{ cm}, b = 15 \text{ cm}$ 5 $a = 7 \text{ cm}, b = 24 \text{ cm}$ 6 $a = 20 \text{ cm}, b = 21 \text{ cm}$



c is the hypotenuse. Find the shorter side b.

- 7 $a = 3 \text{ cm}, c = 5 \text{ cm}$ 8 $a = 12 \text{ cm}, c = 13 \text{ cm}$ 9 $a = 8 \text{ cm}, c = 17 \text{ cm}$
10 $a = 24 \text{ cm}, c = 25 \text{ cm}$ 11 $a = 9 \text{ cm}, c = 15 \text{ cm}$ 12 $a = 20 \text{ cm}, c = 29 \text{ cm}$



c is the hypotenuse. Find the missing side to 1 decimal place.

- 13 $a = 4 \text{ cm}, b = 7 \text{ cm}$ 14 $a = 5 \text{ cm}, c = 9 \text{ cm}$
15 $a = 3 \text{ cm}, b = 10 \text{ cm}$ 16 $b = 6 \text{ cm}, c = 11 \text{ cm}$
17 $a = 2 \text{ cm}, b = 9 \text{ cm}$ 18 $a = 8 \text{ cm}, c = 14 \text{ cm}$



c is the hypotenuse. Find the missing side to 1 decimal place.

- 19 $a = 2.5 \text{ cm}, b = 6.1 \text{ cm}$ 20 $a = 4.2 \text{ cm}, c = 7.5 \text{ cm}$
21 $a = 0.8 \text{ cm}, b = 1.5 \text{ cm}$ 22 $b = 3.6 \text{ cm}, c = 9.4 \text{ cm}$
23 $a = 12.5 \text{ cm}, b = 4.8 \text{ cm}$ 24 $a = 1.2 \text{ cm}, c = 3.7 \text{ cm}$



The sides of a triangle are given. Is it right angled? Write yes or no.

- 25 5 cm, 12 cm, 13 cm 26 6 cm, 8 cm, 11 cm
27 9 cm, 40 cm, 41 cm 28 7 cm, 8 cm, 10 cm
29 10 cm, 24 cm, 26 cm 30 4 cm, 6 cm, 7 cm