

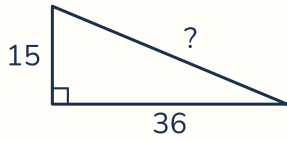
Pythagoras — Both directions

Name: _____

Date: _____

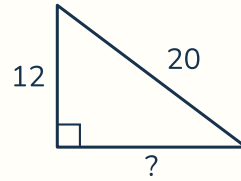
Find the missing side. All lengths are in centimeters.

1



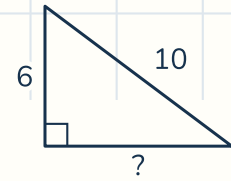
39 cm

2



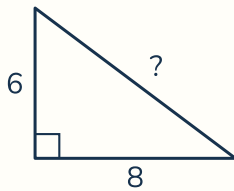
_____ cm

3



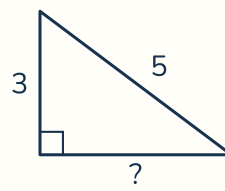
_____ cm

4



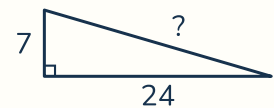
_____ cm

5



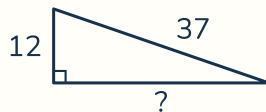
_____ cm

6



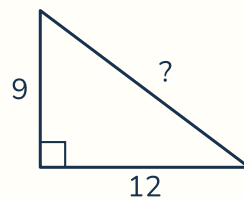
_____ cm

7



_____ cm

8



_____ cm



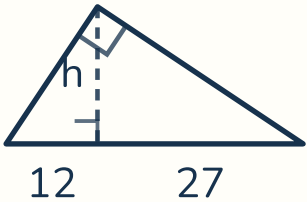
Altitude to the hypotenuse — The altitude

Name: _____

Date: _____

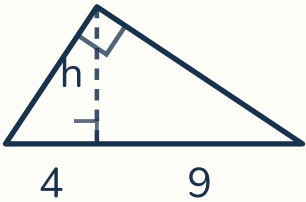
Find each altitude. The altitude is the geometric mean of the two pieces.

1



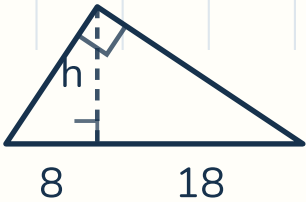
$h = 18$

2



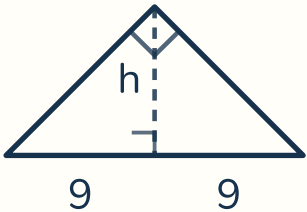
$h = \underline{\hspace{1cm}}$

3



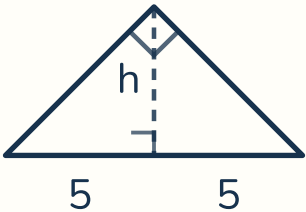
$h = \underline{\hspace{1cm}}$

4



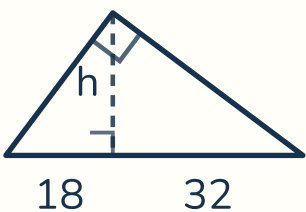
$h = \underline{\hspace{1cm}}$

5



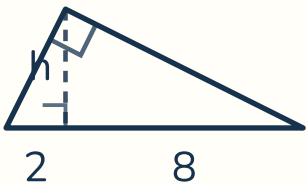
$h = \underline{\hspace{1cm}}$

6



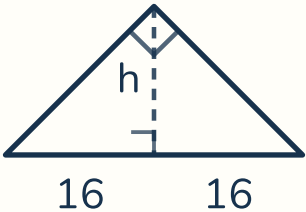
$h = \underline{\hspace{1cm}}$

7



$h = \underline{\hspace{1cm}}$

8



$h = \underline{\hspace{1cm}}$



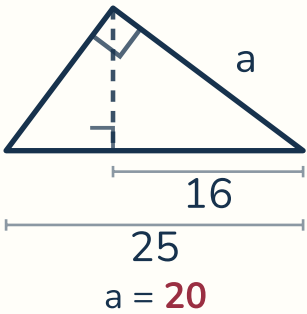
Altitude to the hypotenuse — A leg

Name: _____

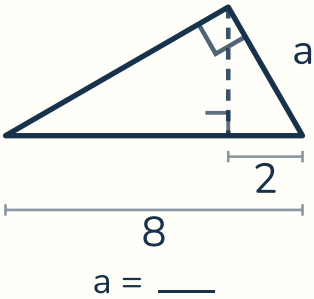
Date: _____

Find each leg. A leg is the geometric mean of the hypotenuse and its piece.

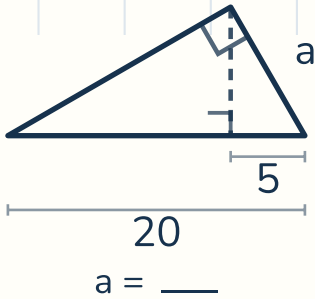
1



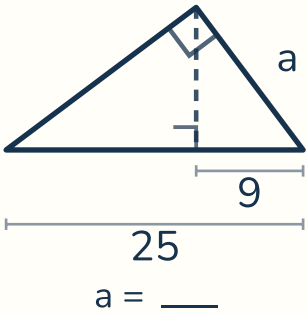
2



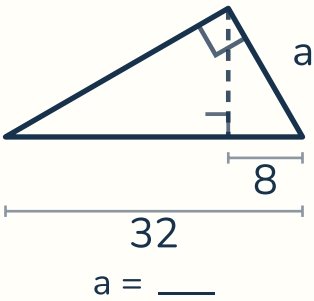
3



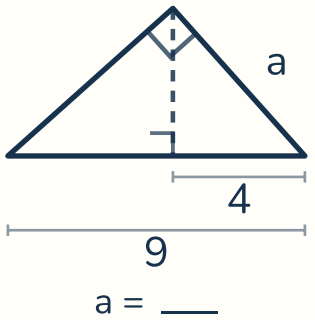
4



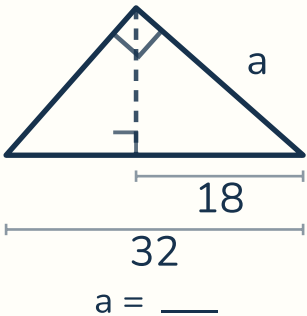
5



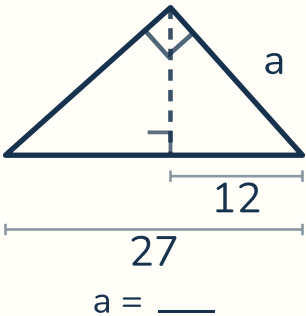
6



7



8



Power Pack · Right triangles — Answer key

Pythagoras

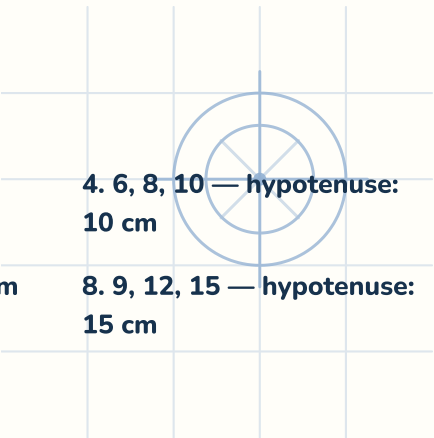
1. 15, 36, 39 — hypotenuse: 39 cm

5. 3, 4, 5 — leg: 4 cm
2. 12, 16, 20 — leg: 16 cm

6. 7, 24, 25 — hypotenuse: 25 cm
3. 6, 8, 10 — leg: 8 cm

7. 12, 35, 37 — leg: 35 cm
4. 6, 8, 10 — hypotenuse: 10 cm

8. 9, 12, 15 — hypotenuse: 15 cm



The altitude to the hypotenuse

1. $h^2 = p \times q = 12 \times 27 \rightarrow h = 18$

5. $h^2 = p \times q = 5 \times 5 \rightarrow h = 5$
2. $h^2 = p \times q = 4 \times 9 \rightarrow h = 6$

6. $h^2 = p \times q = 18 \times 32 \rightarrow h = 24$
3. $h^2 = p \times q = 8 \times 18 \rightarrow h = 12$

7. $h^2 = p \times q = 2 \times 8 \rightarrow h = 4$
4. $h^2 = p \times q = 9 \times 9 \rightarrow h = 9$

8. $h^2 = p \times q = 16 \times 16 \rightarrow h = 16$

A leg from the hypotenuse

1. $a^2 = c \times q = 25 \times 16 \rightarrow a = 20$

5. $a^2 = c \times q = 32 \times 8 \rightarrow a = 16$
2. $a^2 = c \times q = 8 \times 2 \rightarrow a = 4$

6. $a^2 = c \times q = 9 \times 4 \rightarrow a = 6$
3. $a^2 = c \times q = 20 \times 5 \rightarrow a = 10$

7. $a^2 = c \times q = 32 \times 18 \rightarrow a = 24$
4. $a^2 = c \times q = 25 \times 9 \rightarrow a = 15$

8. $a^2 = c \times q = 27 \times 12 \rightarrow a = 18$