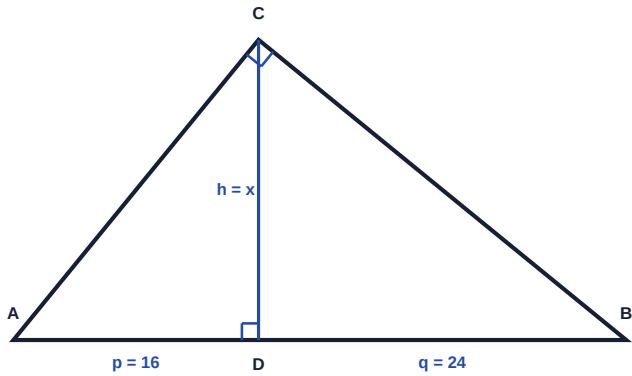


Similar Right Triangles

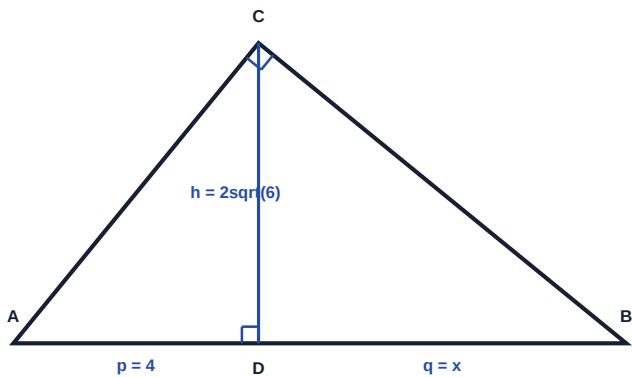
Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; sqrt(n) means the square root of n.

1. Find h.



h =

2. Find q.

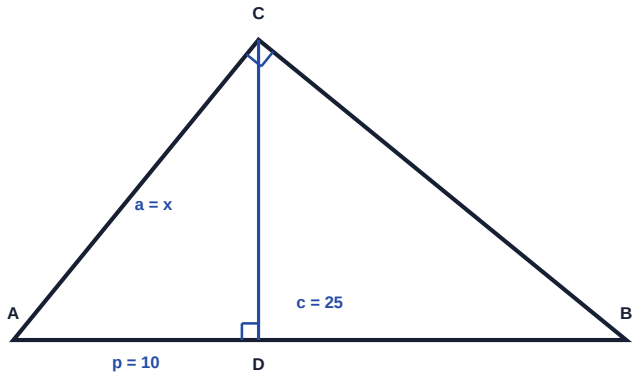


q =

Similar Right Triangles

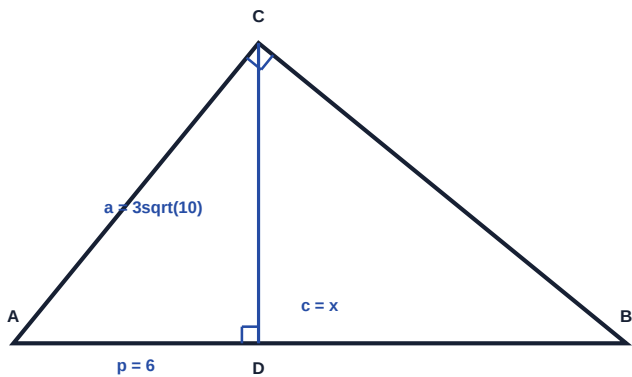
Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; sqrt(n) means the square root of n.

3. Find a.



a =

4. Find the total hypotenuse c.

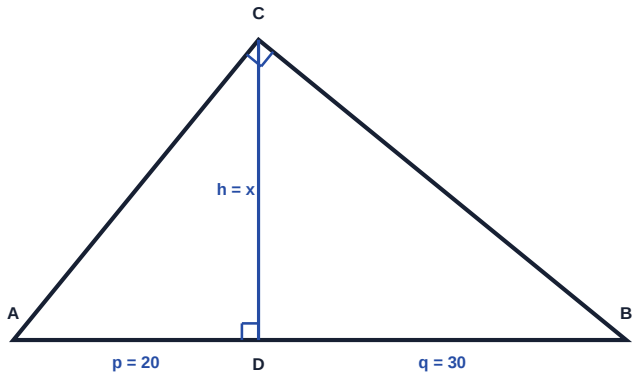


c =

Similar Right Triangles

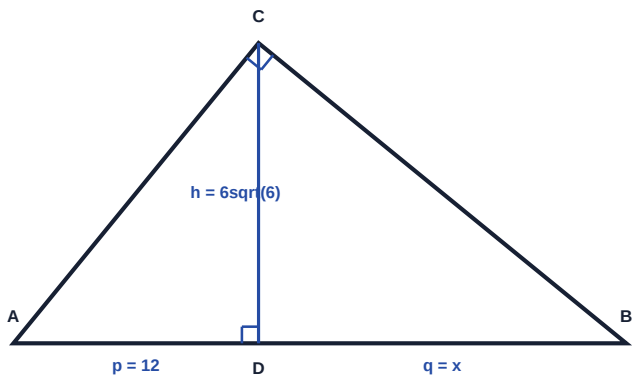
Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; sqrt(n) means the square root of n.

5. Find h.



h =

6. Find q.

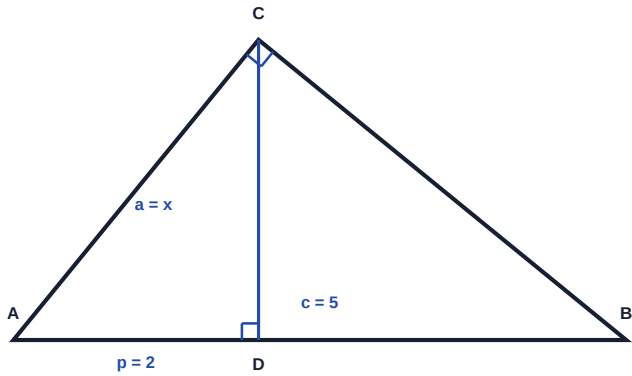


q =

Similar Right Triangles

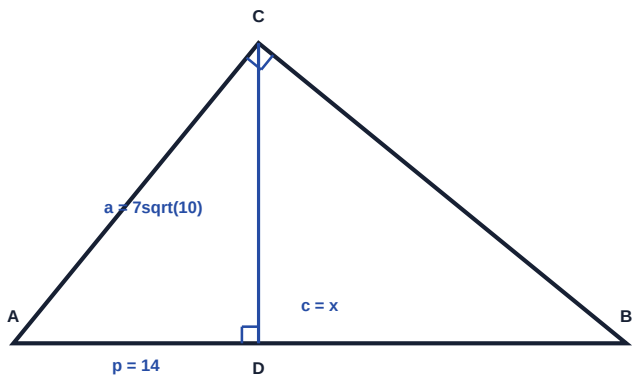
Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; sqrt(n) means the square root of n.

7. Find a.



a =

8. Find the total hypotenuse c.



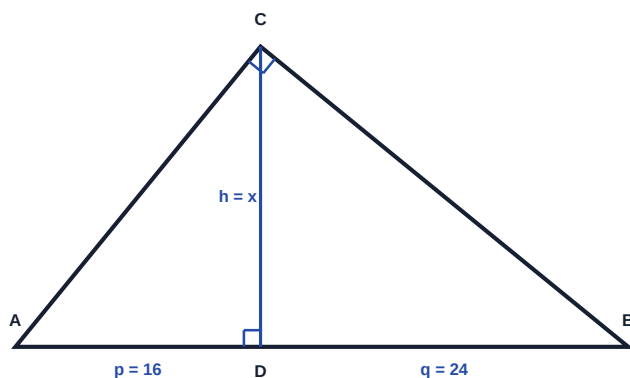
c =

Similar Right Triangles

Worked Answer Key

Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; $\sqrt{n}$ means the square root of n .

1. Find h .



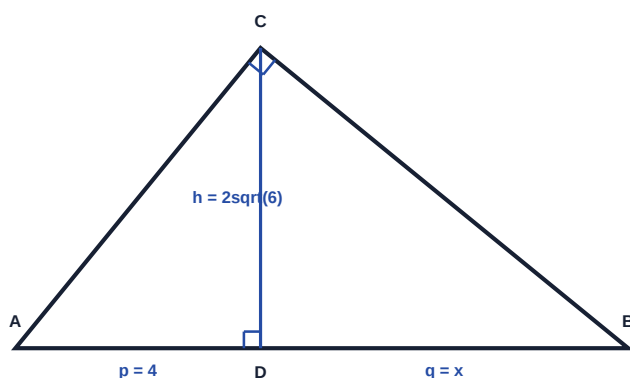
Identity: $h^2 = pq$

Substitute: $h^2 = (16)(24)$

Answer: $h = 8\sqrt{6}$

$h = 8\sqrt{6}$.

2. Find q .



Identity: $h^2 = pq$

Substitute: $(2\sqrt{6})^2 = (4)q$

Answer: $q = 6$

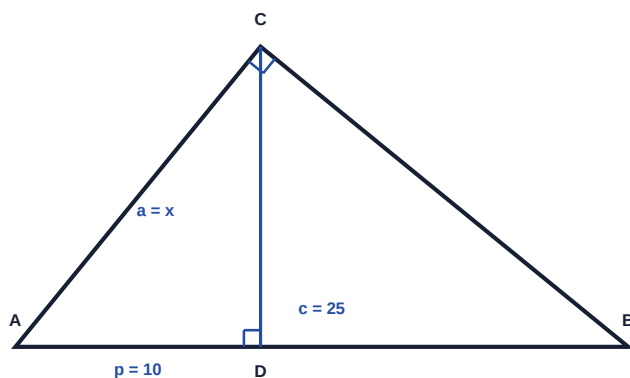
$q = 6$.

Similar Right Triangles

Worked Answer Key

Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; $\sqrt{n}$ means the square root of n .

3. Find a .



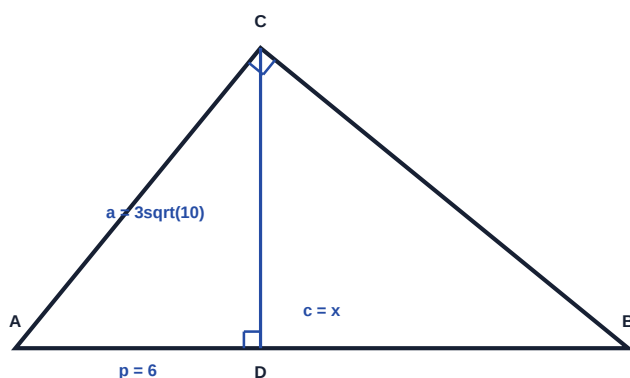
Identity: $a^2 = cp$

Substitute: $a^2 = (25)(10)$

Answer: $a = 5\sqrt{10}$

$a = 5\sqrt{10}$.

4. Find the total hypotenuse c .



Identity: $a^2 = cp$

Substitute: $(3\sqrt{10})^2 = c(6)$

Answer: $c = 15$

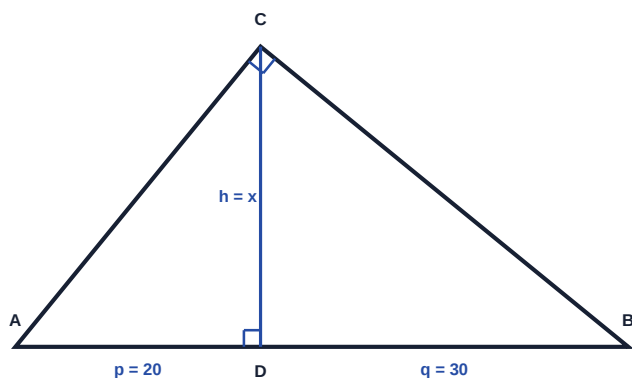
$c = 15$.

Similar Right Triangles

Worked Answer Key

Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; $\sqrt{n}$ means the square root of n .

5. Find h .



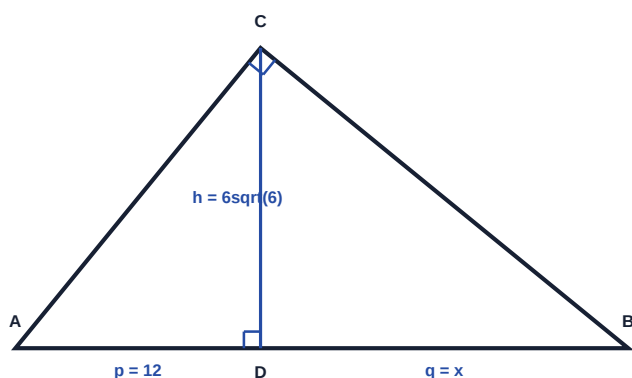
Identity: $h^2 = pq$

Substitute: $h^2 = (20)(30)$

Answer: $h = 10\sqrt{6}$

$h = 10\sqrt{6}$.

6. Find q .



Identity: $h^2 = pq$

Substitute: $(6\sqrt{6})^2 = (12)q$

Answer: $q = 18$

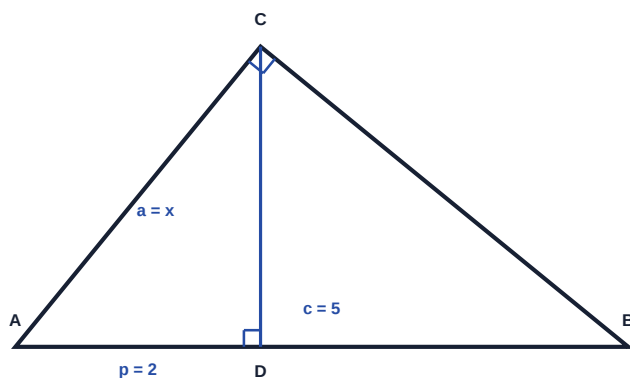
$q = 18$.

Similar Right Triangles

Worked Answer Key

Use the altitude-to-hypotenuse relationships. Leave exact answers simplified; $\sqrt{n}$ means the square root of n .

7. Find a .



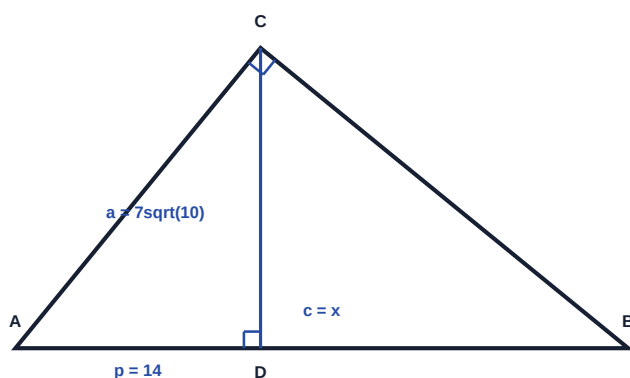
Identity: $a^2 = cp$

Substitute: $a^2 = (5)(2)$

Answer: $a = \sqrt{10}$

$a = \sqrt{10}$.

8. Find the total hypotenuse c .



Identity: $a^2 = cp$

Substitute: $(7\sqrt{10})^2 = c(14)$

Answer: $c = 35$

$c = 35$.