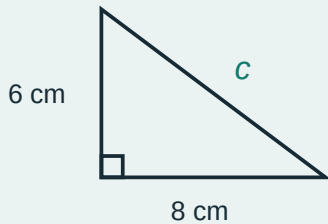


# Work it out. Then try again.

Algebra & geometry / Show your reasoning for each answer.

## 01 Find the missing side

A right triangle has legs of 6 cm and 8 cm. Find  $c$ .



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## 02 Solve for $x$

Find  $x$ , then substitute it back into the original equation.

$$3x + 5 = 26$$

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## 03 Find the minimum

Rewrite  $f(x)$  as a square plus a constant. Find its minimum.

$$f(x) = x^2 - 4x + 1$$

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### REVIEW CHECK

Can you solve each question again without looking at your first attempt?

# Check the steps, not just the result.

Reference page / Keep this page out of view while solving.

## 01 Missing side: 10 cm

$$c^2 = 6^2 + 8^2 = 36 + 64 = 100$$

$$c = 10 \text{ cm (a side length is positive)}$$

$$\text{Check: } 6^2 + 8^2 = 10^2.$$

## 02 Solution: $x = 7$

$$3x + 5 = 26$$

$$3x = 21, \text{ so } x = 7$$

$$\text{Check: } 3(7) + 5 = 26.$$

## 03 Minimum: -3 at $x = 2$

$$f(x) = x^2 - 4x + 1 = (x - 2)^2 - 3$$

A square is at least zero; it equals zero when  $x = 2$ .

$$\text{Check: } f(2) = 4 - 8 + 1 = -3.$$

For a study demo: write your solution on a separate layer on page 1.  
Hide that layer, solve again, then reveal it to compare your reasoning.