## Pythagoras' theorem



- works for right-angled triangles
- c is the hypotenuse (longest side)

$$
a^{2}+b^{2}=c^{2}
$$

- If you know $a$ and $b$, enter their values into the equation. Then take the square root of both sides.

$$
\sqrt{a^{2}+b^{2}}=c
$$

- the equation can be rearranged to make $a$ the subject...

$$
a^{2}=c^{2}-b^{2} \rightarrow a=\sqrt{c^{2}-b^{2}}
$$

- ...or $b$ if required:

$$
b^{2}=c^{2}-a^{2} \rightarrow b=\sqrt{c^{2}-a^{2}}
$$

