## Pythagoras' Theorem

i. State Pythagoras' Theorem.

- Make $a$ the subject of Pythagoras' Theorem.
- Make $b$ the subject of Pythagoras' Theorem.
ii. Find the following length of the hypotenuse $c$, using the given information. Give measurements to 1 d.p.
- Given that $a=3 \mathrm{~cm}, b=4 \mathrm{~cm}$
- Given that $a=6 \mathrm{~cm}, b=8 \mathrm{~cm}$
- Given that $a=5 \mathrm{~mm}, b=12 \mathrm{~mm}$
- Given that $a=1 \mathrm{~m}, b=1 \mathrm{~m}$

- Given that $a=8$ feet, $b=15$ feet
iii. Find the following length of the side $a$, using the given information. Give measurements to 1 d.p.
- Given that $b=9 \mathrm{~m}, c=41 \mathrm{~m}$
- Given that $b=63 \mathrm{~mm}, c=65 \mathrm{~mm}$
- Given that $b=11 \mathrm{~cm}, c=61 \mathrm{~cm}$
- Given that $b=3$ inches, $c=6$ inches
- Given that $b=20 \mathrm{~m}, c=30 \mathrm{~m}$
iv. Find the following length of the side $b$, using the given information. Give measurements to 1 d.p.
- Given that $a=9 \mathrm{~m}, c=15 \mathrm{~m}$
- Given that $a=10 \mathrm{~cm}, c=26 \mathrm{~cm}$
- Given that $a=\sqrt{3} \mathrm{~mm}, c=2 \mathrm{~mm}$
- Given that $a=5 \mathrm{~cm}, c=15 \mathrm{~cm}$
- Given that $a=10 \mathrm{~mm}, c=100 \mathrm{~mm}$
v. Use Pythagoras' Theorem to find the perimeter of a right angle triangle with sides $a=\mathbf{5 c m}$ and $b=\mathbf{6 c m}$

