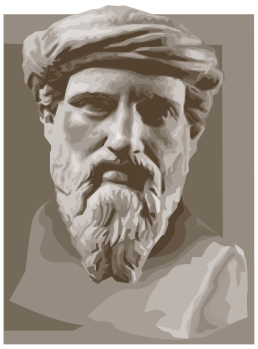
PYTHAGORAS'S RULE
INVESTIGATION
AREAS PROOFS

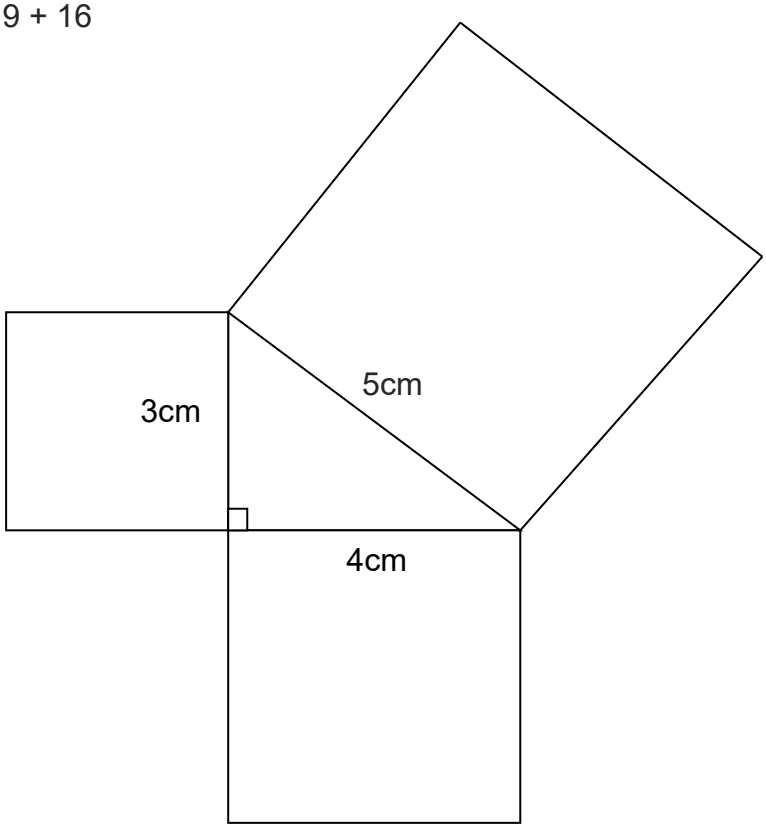


REQUIREMENTS
ruler, pencil

SHOWING PYTHAGORAS'S RULE WITH SQUARES

- Draw a right-angled triangle that measures 3cm, 4cm and 5cm.
- Draw a square on each side.
- Calculate the area of each square.
- Does the square of the hypotenuse equal the sum of the squares of the other two sides?

$c^2 = a^2 + b^2$
$5^2 = 3^2 + 4^2$
$25 = 9 + 16$



SHOWING PYTHAGORAS'S RULE WITH SEMI-CIRCLES

- Draw the same-sized right-angled triangle again.
- Sketch a semi-circle on each side.
- This means that each side is the diameter of the circle.
- Calculate the area of each semi-circle. (Remember to use radii of 1.5, 2 and 2.5.)
- What do you notice?