



Quick Review

- When you multiply a number by itself, you *square* the number.

The square of 5 is $5 \times 5 = 25$

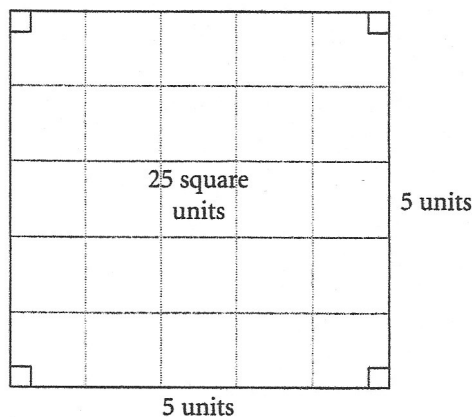
We write: $5^2 = 5 \times 5 = 25$

We say: Five squared is twenty five.

25 is a **square number**, or a **perfect square**.

- You can model a square number by drawing a square whose area is equal to the square number.

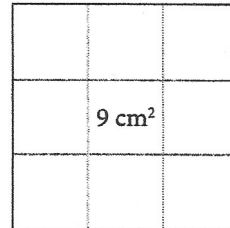
You can model 25 using a square with side length 5 units.



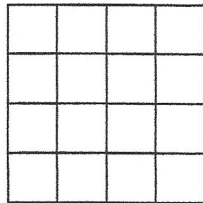
Find the perimeter of a square with area 9 cm^2 .

First, find the side length of the square.

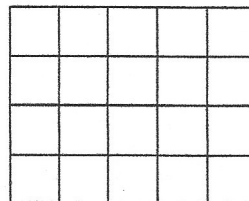
Since $3 \times 3 = 9$, the side length is 3 cm. So, the perimeter is $3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} = 12 \text{ cm}$



16 is a perfect square because you can create a square with area 16 square units using square tiles.



20 is not a perfect square because you cannot create a square with area 20 square units using square tiles. The 4×5 rectangle is the closest to a square that you can get.

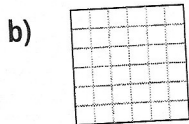


Practice

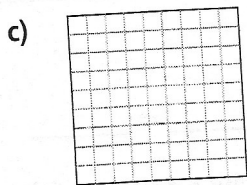
1. Match each diagram to the correct square number.



i) 36



ii) 81



iii) 16

2. Complete the statement for each square number.

a) 64 is a square number because $64 = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

b) 49 is a square number because $49 = \underline{\quad} \times \underline{\quad} = \underline{\quad}$

3. Complete the table. The first row has been done for you.

a)	4^2	4×4	16
b)	3^2	$\underline{\quad} \times \underline{\quad}$	
c)	$\underline{\quad}^2$	7×7	
d)	11^2	$\underline{\quad} \times \underline{\quad}$	

4. Match the area of the square with the correct side length.

a) 25 cm^2

i) 2 cm

b) 64 cm^2

ii) 10 cm

c) 4 cm^2

iii) 5 cm

d) 100 cm^2

iv) 8 cm

5. Use square tiles to decide whether 32 is a square number.

