$$\sqrt{16} = 4$$

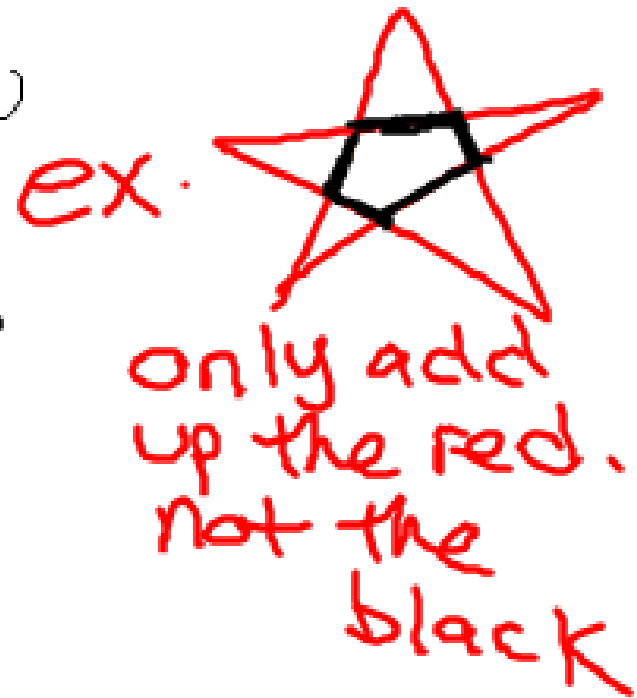because $4 \cdot 4 = 16$

$4^2 = 16$

REVIEW

PERIMETER $\boxed{} = L + W + L + W$

total distance around
the out side of the shape

ex.

only add
up the red.
not the
black

AREA: size of the whole
surface including inside
the shape.   ex. $\boxed{} = L \times W$

PERFECT SQUARE:

The $\underline{answer}$ when you multiply two
identical numbers

$5 \times 5 = \boxed{25}$
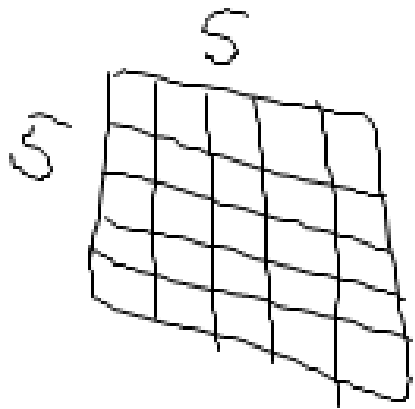
$1.1 \times 1.1 = 1.21$ so 1.21 is a perfect square

SQUARES AND SQUARE ROOTS ARE INVERSE OPERATIONS

$$7^2 = 49 \qquad \sqrt{49} = 7$$

$$\sqrt{7^2} = 7$$

$$5^2 = 5 \times 5 = 25$$

Area = side × side

Area = (side)^2

$\sqrt{Area}$ = side

What is the side length of a square with an area of 81 m²

$$\sqrt{81} = 9$$

$$9 \times 9 = 81$$

9 m

9 m
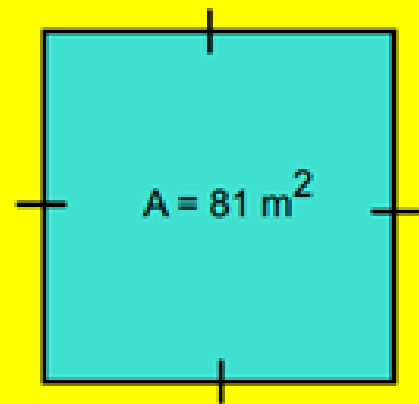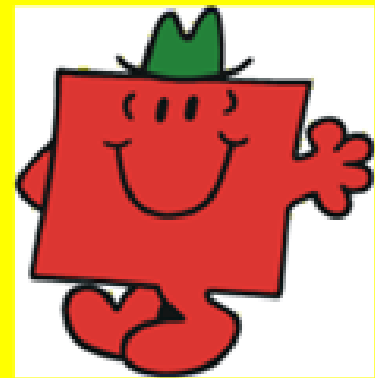
Square with area 44100

$$100 \times 100 = 10\,000$$

$$200 \times 200 = 40\,000$$

$$205 \times 205 = 42025$$

$$210 \times 210 = 44100$$

A = 81 m²

What is the area of a square with a side length of 11 cm?

$$Side^2 = Area$$
$$11^2 = 121 cm$$

What is the side length of a square with an area of 11 cm^2

$$\sqrt{Area} = Side \qquad \sqrt{11} = 3.2$$

Area is always units^2

$$\sqrt{9} = 3 \qquad \sqrt{11} \qquad \sqrt{16} = 4$$

closer

3.2 guess   calculator says
3.3

1.1 Square Roots of Perfect Squares

This playground has an area of 400 m^2.

What length of fence is required to surround the playground?

$\sqrt{400} = 20$

Side length = 20m

Perimeter = 20 x 4

= 80 m