

A square garden has area 150 m^2.

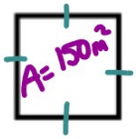
a) What are the approximate dimensions of the garden to one decimal place?

estimate

L x W

Square ⇒ L and W are same

Side=...?



$Side_{\square} = \sqrt{Area}$

$= \sqrt{150m^2}$

$\approx 12.3\ m$

$\sqrt{150}$

$\sqrt{144}$ $\sqrt{169}$

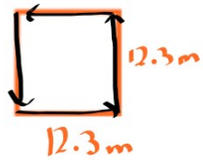
12 closer 13

≈ 12.3

The dimensions of square is 12.3m by 12.3m.

L by W

b) Fencing is needed to keep out the goats. About how much fencing would be needed around the garden?



Perimeter = S + S + S + S

$= 12.3m + 12.3m + 12.3m + 12.3m$

$= 49.2m$

Perimeter square ⇒ or 4x(side)

About 49.2m of fencing is needed to keep the goats in.

Multiple choice

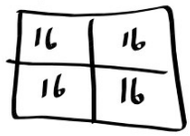


Area = 64

What is perimeter ???

a) 16

64 ÷ 4



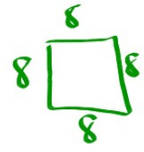
b) 8

Side: $\sqrt{64}$

= 8

1 side

c) 32



d) 6.4

NB sense

Area ≥ 10

$A_{\text{of square}} = \text{Side}^2$

$\text{Side of square} = \sqrt{\text{Area}}$

Homework pg. 25

Test Wed. Nov 25

#2, #3, #4, #5 #7

A non-perfect number

Quiz outline

Page 1 (No Calculators)

- 5 MC 3 Short Response
  - Must know $\sqrt{x^2} = x$ or $(\sqrt{x})^2 = x$
  - Must know difference of square root of a number & squaring a number
  - If a number has an odd or even number of factors then what does that te you about the number (A # with an odd # of factors is a perfect square #.

Page 2) (Calculator)

- Product of perfect squares → $\sqrt{(\ )\times(\ )} = \sqrt{(\ )} \times \sqrt{(\ )}$
- Product of Primes (Tree)

$\sqrt{(\ )\times(\ )\times(\ )\cdots}$

$\sqrt{8} \approx 2.7$ 2.8 2.9

$\sqrt{4} = 2$ $\sqrt{9} = 3$

4a) $\sqrt{15 \times 15} = 15$

WS25

2. Which type of number has an approximate square root?

3. How can you use perfect squares to estimate a square root, such as $\sqrt{8}$?

4. Find.

a) $\sqrt{15 \times 15}$ b) $\sqrt{22 \times 22}$ c) $\sqrt{3 \times 3}$ d) $\sqrt{1 \times 1}$

5. Between which two consecutive whole numbers is each square root? How do you know?

a) $\sqrt{5}$ b) $\sqrt{11}$ c) $\sqrt{57}$ d) $\sqrt{38}$

e) $\sqrt{171}$ f) $\sqrt{115}$

7. Use the number line below.

a) Which placements are good estimates of the square roots? Explain your reasoning.

