Class 8-Mathematics

Instructions for students: The notes provided must be copied to the Maths copy and then do the homework in the same copy.

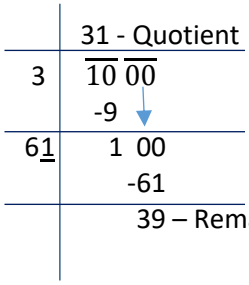
Chapter 3

SQUARES AND SQUARE ROOTS (Continued)

Exercise 3.4

Q7.Find the smallest four digit number which is a perfect square.

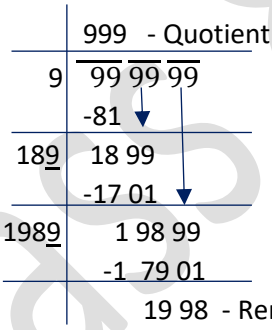
The smallest four digit number =1000



Clearly $31^2 < 1000$.
Next perfect square is $32^2 = 1024$
Smallest four digit number which is a perfect square =1024.

Q8. Find the largest six digit number which is a perfect square.

The largest six digit number = 9,99,999



The largest six digit number which is a perfect square = 999999 -1998
=998001

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10. i. AB =14 cm, BC = 48 cm AC = ?

In a right angled Δ ABC,

$AB^2 + BC^2 = AC^2$ (By Pythagoras Theorem)

$\Rightarrow 14^2 + 48^2 = AC^2$

$\Rightarrow 196+2304 = AC^2$

$\Rightarrow AC^2 = 2500$

$\Rightarrow AC = \sqrt{2500}$

=50cm. (Find the square root by appropriate method)

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11. Total number of plants = 1400.

Since number of columns should be equal to number of rows, the total number of plants should be a perfect square.

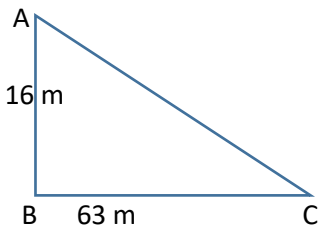
	37	
3	$\overline{14}\ \overline{00}$	
	-9	
67	5	00
	-4	69
		31

Clearly, $37^2<1400$

The next perfect square is $38^2 = 1444$

Number of more plants needed = 1444-1400 =44.

13.



Distance walked by Amit towards south =AB= 16 m

Distance walked by Amit towards east= BC= 63 m

Distance walked by Amit while returning back = CA.

Clearly, ΔABC is right angled.

$\therefore CA^2 = AB^2 + BC^2$ ((By Pythagoras Theorem)

$CA^2 = 16^2 + 63^2$

$= 256+3969$

$=4225$

$CA = \sqrt{4225}$

=65 m (Find the square root by appropriate method)

Home work:

Exercise 3.4: Questions 10.ii, 12,14.