Squares and Square Roots Ex 3.5 Q4

Answer :

The greatest number with five digits is 99999. To find the greatest square number with five digits, we must find the smallest number that must be subtracted from 99999 in order to make a perfect square. For that, we have to find the square root of 99999 by the long division method as follows:

	316
3	99999
3	9
61	099
1	61
626	3899
6	3756
	143

Hence, we must subtract 143 from 99999 to get a perfect square:

99999 − 143 = 99856

Squares and Square Roots Ex 3.5 Q5

Answer :

The least number with four digits is 1000. To find the least square number with four digits, we must find the smallest number that must be added to 1000 in order to make a perfect square. For that, we have to find the square root of 1000 by the long division method as shown below:

	32
3	1000
3	9
62	100
2	124
	−24

1000 is 24 (124 − 100) less than the nearest square number 32^2. Thus, 24 must be added to 1000 to be a perfect square.

1000 + 24 = 1024

Hence, the smallest perfect square number with four digits is 1024.

Squares and Square Roots Ex 3.5 Q6

Answer :

The least number with six digits is 100000. To find the least square number with six digits, we must find the smallest number that must be added to 100000 in order to make a perfect square. For that, we have to find the square root of 100000 by the long division method as follows:

	317
3	100000
3	9
61	100
1	61
627	3900
7	4389
	−489

100000 is 489 (4389 − 3900) less than 317^2. Hence, to be a perfect square, 489 should be added to 100000.

100000 + 489 = 100489

Hence, the least number of six digits that is a perfect square is 100489.

Squares and Square Roots Ex 3.5 Q7

Answer :

The greatest number with four digits is 9999. To find the greatest perfect square with four digits, we must find the smallest number that must be subtracted from 9999 in order to make a perfect square. For that, we have to find the square root of 9999 by the long division method as shown below:

	99
9	1000
9	9
189	1899
9	1701
	198

We must subtract 198 from 9999 to make a perfect square:

9999 − 198 = 9801

Hence, the greatest perfect square with four digits is 9801.

********** END **********