

1.i Possible one's digit in square root of

9801 is 1 or 9 ($\because 1^2 = 1, 9^2 = 81$)

(ii) Possible one's digit in square root of 99856 is 4 or 6 ($\because 4^2 = 16, 6^2 = 36$)

(iii) 998001 is 1 or 9 ($\because 1^2 = 1, 9^2 = 81$)

(iv) 657666025 is 5 ($\because 5^2 = 25$)

2 (i) 153 (ii) 257 (iii) 408

\because a perfect square cannot end in 3, 5 and 8

3 (i) 1. $100 - 1 = 99$

2. $99 - 3 = 96$

3. $96 - 5 = 91$

4. $91 - 7 = 84$

5. $84 - 9 = 75$

6. $75 - 11 = 64$

7. $64 - 13 = 51$

8. $51 - 15 = 36$

9. $36 - 17 = 19$

10. $19 - 19 = \underline{0}$

$\therefore \sqrt{100} = 10$

\because 0 is obtained in 10th Step