17 576. In this case one group i.e., 576 has three digits whereas 17 has only two digits.

**Step 2**    Take 576.

The digit 6 is at its one's place.

We take the one's place of the required cube root as 6.

**Step 3**    Take the other group, i.e., 17.

Cube of 2 is 8 and cube of 3 is 27. 17 lies between 8 and 27.

The smaller number among 2 and 3 is 2.

The one's place of 2 is 2 itself. Take 2 as ten's place of the cube root of 17576.

Thus, $\sqrt[3]{17576} = 26$   (Check it!)

## EXERCISE 7.2

1. Find the cube root of each of the following numbers by prime factorisation method.

   (i) 64      (ii) 512      (iii) 10648      (iv) 27000

   (v) 15625      (vi) 13824      (vii) 110592      (viii) 46656

   (ix) 175616      (x) 91125

2. State true or false.

   (i) Cube of any odd number is even.

   (ii) A perfect cube does not end with two zeros.

   (iii) If square of a number ends with 5, then its cube ends with 25.

   (iv) There is no perfect cube which ends with 8.

   (v) The cube of a two digit number may be a three digit number.

   (vi) The cube of a two digit number may have seven or more digits.

   (vii) The cube of a single digit number may be a single digit number.

3. You are told that 1,331 is a perfect cube. Can you guess without factorisation what is its cube root? Similarly, guess the cube roots of 4913, 12167, 32768.