

2**State whether the following statements are true or false :****(1) Cube of any odd number is even****Sol. False**

We know that cube of every odd number is odd

**(2) A perfect cube does not end with two zeros.****Sol. True****(3) If square of a number ends with 5, then its number ends with 25.****Sol. False****Eg:**

$$15^2 = 225$$

$$15^3 = 3375$$

**(4) If square of a number ends with 5, then its number ends with 8.****Sol. False**

If the digit in the one's place of a number is 5, the digit in the one's place of its cube will also be the same digit i.e. 5



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

Sol. False

Hence there are perfect cube which ends with 8.



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

Sol. False

The cubes of a two digit number may be a four digit number.



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

Sol. True

The cube of a single digit number may or may not be a single digit.



3

You are told that 1,331 is a perfect cube. Can you guess with factorization what is its cube root? Similarly guess the cube roots of 4913, 12167, 32768.

Sol. 1331

We know that $1^3 = 1$

Next number with 1 in its unit's place is 11

$$11^3 = 1331$$

Hence, cube root of 1331 is 11.

Sol. 4913

We know that $7^3 = 343$

Next number with 7 in its unit's place is 17

$$17^3 = 4913$$

Hence, cube root of 4913 is 17.

Sol. 12167

We know that $3^3 = 27$

Next number with 3 in its unit's place is 13

$$13^3 = 2197$$

Next number with 3 in its unit's place is 23

$$23^3 = 12167$$

Sol. 32768

We know that $2^3 = 8$

Next number with 2 in its unit's place is 12

$$12^3 = 1728$$

Next number with 2 in its unit's place is 22

$$22^3 = 10648$$

Next number with 2 in its unit's place is 32

$$32^3 = 32768$$

Hence, cube root of 32768 is 32.

$$1^3 = 1$$

$$2^3 = 8$$

$$3^3 = 27$$

$$4^3 = 64$$

$$5^3 = 125$$

$$6^3 = 216$$

$$7^3 = 343$$

$$8^3 = 512$$

$$9^3 = 729$$

$$10^3 = 1000$$