

The square root of every prime number is irrational

- ▶ **True**
- ▶ False
- ▶ Depends on the prime number given

Question No: 18 (Marks: 1) - Please choose one
The greatest common divisor of 27 and 72 is

- ▶ 27
- ▶ **9**
- ▶ 1
- ▶ None of these

Solution:

1.Divide 72 by 27:

This gives $72 = 27 \cdot 2 + 18$

2.Divide 27 by 18:

This gives $27 = 18 \cdot 1 + 9$

3.Divide 18 by 9:

This gives $18 = 9 \cdot 2 + 0$

Hence greatest common divisor $(72, 27) = 9$.

Question No: 19 (Marks: 1) - Please choose one
If T is a full binary tree and has 5 internal vertices then the total vertices of T are

- ▶ **11**
- ▶ 12
- ▶ 13
- ▶ None of the these

$$2k + 1 = 2(5) + 1 = 10 + 1 = 11$$

Question No: 20 (Marks: 1) - Please choose one
Suppose that a connected planar simple graph has 30 edges. If a plane drawing of this graph has 20 faces, how many vertices does the graph have?

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- ▶ 13
- ▶ 14

Question No: 21 (Marks: 1) - Please choose one
How many different ways can three of the letters of the word BYTES be chosen if the first letter must be B ?

- ▶ **P(4,2)**
- ▶ P(2,4)
- ▶ C(4,2)
- ▶ None of these