

Playing With Numbers (Factors)

Class 6

Playing With Numbers

Prime Numbers

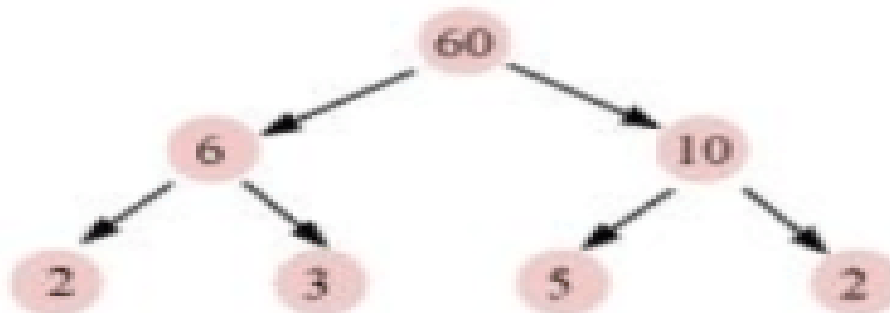
prime number

1 2 3 4 5 6 7 8 9 10

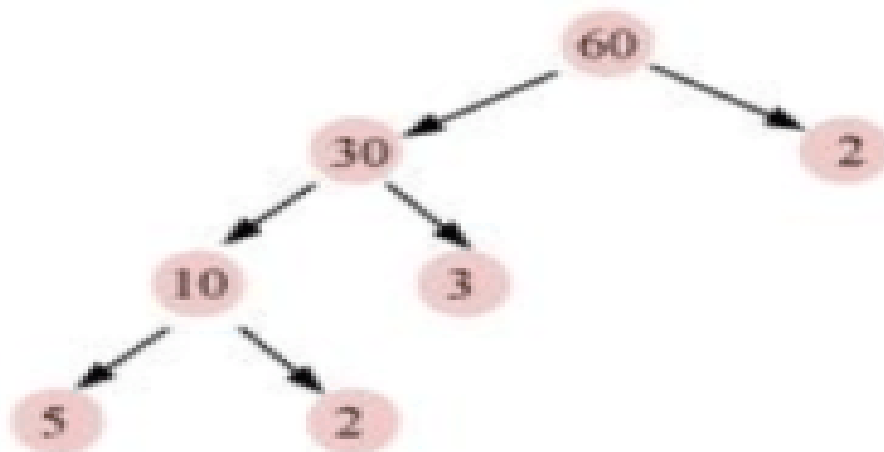
The diagram illustrates the concept of prime numbers. The word "prime number" is written in green at the top. Below it, the numbers 1 through 10 are listed in a row. The numbers 2, 3, 5, and 7 are highlighted in green. Green arrows point from the word "prime number" to each of these four numbers. This visualizes that 2, 3, 5, and 7 are prime numbers, while 1, 4, 6, 8, 9, and 10 are not.

FACTOR TREE

(a) As $6 = 2 \times 3$ and $10 = 5 \times 2$



(b) As $60 = 30 \times 2$, $30 = 10 \times 3$, and $10 = 5 \times 2$



Example of H.C.F

- The answers are in **red** below. Did you identify them?

28 and 32

| 28 | 32 |
|----|----|
| 2 | 2 |
| 2 | 2 |
| 7 | 2 |
| | 2 |
| | 2 |

$$\text{HCF} = 2 \times 2 = 4$$

21 and 42

| 21 | 42 |
|----|----|
| 3 | 2 |
| 7 | 3 |
| | 7 |
| | |
| | |

$$\text{HCF} = 3 \times 7 = 21$$

33 and 110

| 33 | 110 |
|----|-----|
| 3 | 2 |
| 11 | 5 |
| | 11 |
| | |
| | |

$$\text{HCF} = 11$$

HOW TO FIND L.C.M

| | |
|----------|------------------|
| 3 | 6, 15, 18 |
| 2 | 2, 5, 6 |
| 3 | 1, 5, 3 |
| 5 | 1, 5, 1 |
| | 1, 1, 1 |

FACTORS OF 12 : 1, 2, 3, 4, 6, 12

FACTORS OF 16 : 1, 2, 4, 8, 16

Common Factors



Q2. Find the value of 'A' & 'B' from the following ?

$$\begin{array}{r} 12A \\ + 6AB \\ \hline A09 \end{array}$$

- (i) 3 & 4 (ii) 5 & 2 (iii) 8 & 1 (iv) 4 & 8

Q3. If the three digit number 24x is divisible by '9', what is the value of 'x'?

- (i) 3 (ii) 5 (iii) 8 (iv) 4

Q4. If 21z5 is a multiple of '9', where 'z' is a digit, find the value of 'z' ?

- (i) 2 (ii) 3 (iii) 8 (iv) 1