

NUMBERS

HCF AND LCM

- HCF is the highest common factor
- LCM is the lowest common multiple

HCF:

Method:

- Suppose you have to find the HCF and LCM of 24 and 36.
- Repeatedly divide the two given numbers till you cannot find any more common divisors. (The common divisors are also the factors as they leave a remainder equal to 0)
- The product of the common factors is the HCF.

$$\text{HCF: } 2 \times 2 \times 3 = 12$$

2	24	36
2	12	18
3	6	9
	2	3

HCF and LCM

Find the HCF and LCM of
24 and 36 using
Repeated Division

$$\text{LCM: } 2 \times 2 \times 3 \times 2 \times 3 = 72$$

LCM: = Common factors x uncommon factors

Common factors are: (2,3,3)

Uncommon factors are: (2,3)

Hence LCM= $2 \times 3 \times 3 \times 2 \times 3 = 72$

Solved Board paper questions:

M/J/-P21-Q17

(b) Find the lowest common multiple (LCM) of 30 and 45.

Answer(b) [2]

2 Find the lowest common multiple (LCM) of 24 and 32.

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Answer [2]

M/J/-P42-Q1C

(ii) Work out the highest common factor (HCF) of 48 and 60.

Answer(c)(ii) [2]

(iii) Work out the lowest common multiple (LCM) of 48 and 60.

Answer(c)(iii) [2]
