

ST. MICHAEL'S SCHOOL, MURI

(Affiliated to C.B.S.E., New Delhi)

SYLLABUS CUM HOME ASSIGNMENT 2020 -21 FOR CLASS – X

SUB : MATHS

HOME ASSIGNMENT OF STD - X

PERIODIC TEST – I

Chapter – 1 (REAL NUMBER)

- Obtain the HCF and LCM of two positive integers (At least 10 questions)

Chapter – 2 (POLYNOMIAL)

- Factorize the polynomials by splitting the middle term method.

PERIODIC TEST – II

Chapter – 3 (PAIR OF LINEAR EQUATION IN TWO VARIABLES)

Chapter – 4 (QUADRATIC EQUATION)

Eg. Find the HCF of 1260 and 7344 using Euclid's algorithm.

Solution. Given integers are 1260 and 7344. Clearly $7344 > 1260$.

Applying Euclid's division algorithm, we get

$$7344 = 1260 \times 5 + 1044$$

$$1260 = 1044 \times 1 + 216$$

$$1044 = 216 \times 4 + 180$$

$$216 = 180 \times 1 + 36$$

$$180 = 36 \times 5 + 0$$

In the last equation, the remainder is zero and the divisor in the last equation is 36. Hence, HCF of 1260 and 7344 = **36**.

Eg. Factorize : $6x^2 + 7x - 3$.

Solution. The given expression is $6x^2 + 7x - 3$.

Here, $6 \times (-3) = -18$.

So, we try to split 7 into two parts whose sum is 7 and product -18.

Clearly, $9 + (-2) = 7$ and $9 \times (-2) = -18$.

$$\begin{aligned} \therefore 6x^2 + 7x - 3 &= 6x^2 + 9x - 2x - 3 \\ &= 3x(2x + 3) - (2x + 3) \\ &= (2x + 3)(3x - 1) \end{aligned}$$

Hence, $(6x^2 + 7x - 3) = (2x + 3)(3x - 1)$.
