CLASS 10

## **REAL NUMBERS**

## **EUCLID'S DIVISION LEMMA**

## EXERCISE

Ex.1	Use Euclid's division algorithm to find the HCF of :		
	(i) 56 and 814		(ii) 6265 and 76254
Ex.2	Use Euclid's' Division Lemma to show that the square of any positive integer is either of the form $3m$ of $3m + 1$ for some integer m.		
Ex.3	Use Euclid's Division Algorithm to show that the cube of any positive integer is either of the 9m, $9m + 1$ or $9m + 8$ for some integer m		
Ex.4	What do you mean by Euclid's division algorithm.		
Ex.5	A number when divided by 61 gives 27 as quotient and 32 as remainder. Find the number.		
Ex.6	By what number should 1365 be divided to get 31 as quotient and 32 as remainder?		
Ex.7	Using Euclid's algorithm, find the HCF of		
	(i) 405 and 2520	(ii) 504 and 1188	
	(iii) 960 and 1575		
Ex.8	Using prime factorisation, find the HCF and LCM of		
	(i) 144, 198	(ii) 396, 1080	
	(iii) 1152, 1664		
Ex.9	Using prime factorisation, find the HCF and LCM of		
	(i) 24, 36, 40		

(ii) 30, 72, 432

(iii) 21, 28, 36, 45

## **ANSWER:**

(ii) 179 (i) 2 1. 5. 1679 43 6. 7. (i) 45 (ii) 36 (iii) 15 8. (i) HCF = 18, LCM = 1584 (ii) HCF = 36, LCM = 11880 (iii) HCF = 128, LCM = 14976 9. (i) HCF = 4, LCM = 360(ii) HCF = 6, LCM = 2160 (iii) HCF = 1, LCM = 1260