

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Highest Common Factor (HCF)

Q1. Determine the HCF of following pairs by finding factors.

Sol. a. 27 and 63

b. 36 and 45

Q2. Find the HCF by prime factorization method.

Sol. a. 18, 54 and 81

b. 50, 110

Q4. What is the HCF of two prime numbers?

Sol.

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## Highest Common Factor (HCF)

Q1. Determine the HCF of following pairs by finding factors.

Sol. a. 27 and 63

Factors of 27 = 1,3,9,27

Factor of 63 = 1,3,7,9,21,63

Common factors = 1, 3, 9

HCF = 9

b. 36 and 45

Factors of 36 = 1, 2, 3, 4, 6, 9, 12, 18, 36.

Factor of 45 = 1, 3, 5, 9, 15 and 45.

Common factors = 1, 3, 9

HCF = 9

Q2. Find the HCF by prime factorization method.

Sol. a. 18, 54 and 81

2	18
3	9
3	3
	1

2	54
3	27
3	9
3	3
	1

3	81
3	27
3	9
3	3
	1

b. 50, 110

2	50
5	25
5	5
	1

2	110
5	55
11	11
	1

Thus,  $18 = 2 \times 3 \times 3$

$54 = 2 \times 3 \times 3 \times 3$

$81 = 3 \times 3 \times 3 \times 3$

HCF =  $3 \times 3 = 9$

Thus,  $50 = 2 \times 5 \times 5$

$110 = 2 \times 5 \times 11$

HCF =  $2 \times 5 = 10$

Q4. What is the HCF of two prime numbers?

Sol. 1