

ACTIVITY-5

PLAYING WITH NUMBERS

HIGHEST COMMON FACTOR (H.C.F.)

1. What we have to do?

To compute the Highest Common Factor (H.C.F.) of given numbers by playway method.

2. What is required?

A number board and coloured sketch pens of three different colours.

3. How much time required for this activity?

30-40 minutes.

4. What do you need to know?

Concept of Factors and Common factors.

5. How will you proceed?

- Take a number board with natural numbers 1 to 100.
- Suppose we have to find the Highest Common Factor (H.C.F.) of 18, 54 and 81.
- Now, choose the colour of sketch pen for each number. We choose red colour for 18, green colour for 54 and blue colour for 81.
- Mark red dot on all the factors of 18.
- Mark green dot on all the factors of 54.
- Finally, mark blue dot on all the factors of 81.
- Highlight the greatest number which has all the three coloured dots.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

6. What have you observed?

- Write all the common factors of 18, 54 and 81.
- Write the Highest Common Factor (H.C.F.) of 18, 54 and 81.

7. What have you learnt?

8. What you have to do as extended activity?

- Priya want to plant 45 sunflower plants, 63 tomato plants and 84 corn plants in her garden. If she puts the same number of plants in each row and each row has only one type of plant, what is the greatest number of plants she can put in each row?

9. Real Life Application:

The Highest Common Factor (H.C.F.) can be used in the following cases:

- (i) to split things into smaller sections
- (ii) to arrange something into rows or groups
- (iii) to equally distribute two or more sets of items into their largest grouping