



START UP MATHEMATICS

ACTIVITY BOOK

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**NEP-Aligned
Skill Development and Practice**

- Discovery, discussion and analysis-based learning
- Interdisciplinary and co-curricular strategy
- HOTS, critical thinking and problem solving
- Life skills
- Experiential learning promoting exchange of ideas
- Precisely mapped with Start Up Mathematics coursebook

Effective **NEP**
implementation
tools for learning
mathematics

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Factors and Multiples

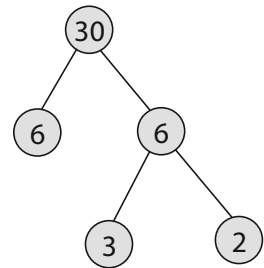
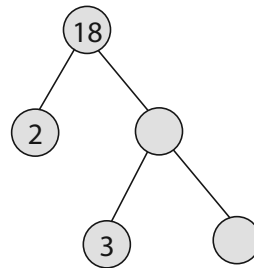
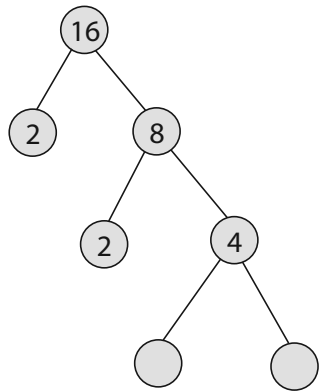
Observe and Answer

Skills Covered: • Observation • Analytical thinking
• Decision making

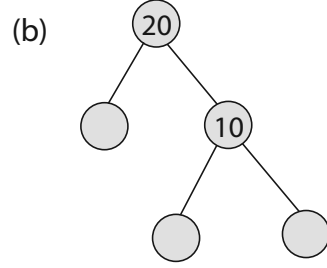
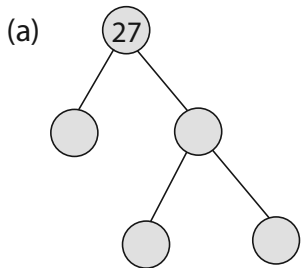
Building a Factor Tree

- This is a factor tree.
- We make as many branches as possible.
- We stop when we have 1 as a factor.

Let us make factor trees for 16 and 18.



Try these.



Life Skills

Skills Covered: • Awareness • Observation
• Problem solving • Critical thinking

Collect the following data about your school and fill the table.

Class	Number of Sections	Number of Sections is a Multiple of Class or not
1	7	Yes
2	5	No
3		
4		
5		
6		

Values

Skills Covered: • Social and emotional skills • Awareness
• Observation • Decision making

A school organises hobby classes for its students in month of June. The programme schedule is as follows.

Instrumental classes – Every 2nd day starting from June 2nd

Judo classes – Every 3rd day starting from June 3rd

Craft classes – Every 4th day starting from June 4th

Skating classes – Every 5th day starting from June 5th

- Aman enjoys all these activities and decides to join all the classes.
- Aman also requests his father to pay for Rishabh's skating classes. Rishabh is good at skating but unable to pay for it.
- Fill the table using multiples. Remember June has 30 days.

Instrumental classes: 2, 4, 6 _____

Judo classes: 3, 6, 9 _____

Craft classes: 4, 8, 12 _____

Skating classes: 5, 10 _____

Answer these questions.

1. Which classes will Aman attend on 30th June?
2. What are the dates on which Aman will not have any class to attend?
3. Is there any day on which Aman will attend all four classes?
4. On what date Rishabh will attend his fifth class of skating?
5. Which value is depicted by Aman?

Integrated Learning

Skills Covered: • In-depth learning • Critical and logical thinking
• Observation • Reasoning

Linking with Language

- How many letters are there in English alphabet?
- Write all the letters coming at the places of multiples of 3.
- Write the factors of total number of letters in English alphabet.

Time To Do Some Research

Skills Covered: • Investigation • Observation • Logical and critical thinking
• Analytical thinking • Reasoning

Write any five important festivals that are celebrated in our country on fixed dates and fill the table with (✓) or (✗).

S. No.	Day	Date	Factors			
			2	3	5	7
1.	Republic Day	26	✓	✗	✗	✗
2.						
3.						
4.						
5.						

Apply Your Learning

Skills Covered: • Applicative thinking • Observation
• Decision making • Problem solving

Put (✓) if the number is divisible and (✗) if it is not.

Number	Divisible by			
	2	3	5	10
12				
135				
220				
329				
450				
663				

Higher Order Thinking Skills

Skills Covered: • Observation • Critical and logical thinking
• Problem solving • Reasoning

1. Write the missing term.

$$1 \times \underline{\hspace{2cm}} = 30$$

$$2 \times \underline{\hspace{2cm}} = 30$$

$$3 \times \underline{\hspace{2cm}} = 30$$

$$5 \times \underline{\hspace{2cm}} = 30$$

What is the sum of all the missing factors of 30?

- (a) 61 (b) 45 (c) 30 (d) 60

2. What is the product of the common factors of 10 and 15?

- (a) 25 (b) 150 (c) 5 (d) 6

3. Which of the following is a multiple of both 6 and 9?
(a) 48 (b) 108 (c) 168 (d) 138
4. Which number is the multiple of all the numbers from 1 to 10?
(a) 1,440 (b) 5,040 (c) 1,260 (d) 720
5. What is the sum of first common multiple and second common multiple of 4 and 5?
(a) 20 (b) 0 (c) 40 (d) 60

Competitive Corner

Skills Covered: • Analytical thinking • Quantitative reasoning
• Time management • Problem solving

1. What is the greatest factor of a number?
(a) 1 (b) Number itself
(c) 0 (d) Twice the number
2. What are the two factors of 31?
(a) 2, 15 (b) 0, 31
(c) 62, 31 (d) 1, 31
3. What is the smallest non-zero multiple of a number?
(a) 1 (b) 0
(c) Number itself (d) 2
4. Which is the only prime number that is not odd?
(a) 3 (b) 2
(c) 1 (d) 0
5. Which of the following is a prime number?
(a) 17 (b) 39
(c) 49 (d) 28
6. Which of the following is a composite number?
(a) 23 (b) 21
(c) 19 (d) 17