

**CLASS 4**



# MATHEMATICS

**Olympiad**

Prepguide & PYQs



**Workbook**

After School Practice



Concept Maps

Beginner's MCQs

Everyday Curiosity Qns

Olympiad Exam PYQs

Achievers MCQs

IMO, iOM, Hindustan Olympiad, NSTSE, SEAMO, ISTSE and others

# Overview of Major Olympiad Exams

## International Mathematics Olympiad (IMO)

### Exam Details

Feature	Information
Frequency of conduct	Once a year
Exam Mode	Offline
Medium	English
Exam Duration	60 Minutes
Type of Questions	Multiple Choice Questions (Objective Type)

### Syllabus

**Section-1:** Patterns, Alphabet Test, Coding-Decoding, Ranking Test, Mirror Images, Geometrical Shapes and Solids, Embedded Figures, Direction Sense Test, Possible Combinations, Analogy and Classification, Clock and Calendar.

**Section-2:** Numerals, Number Names, Number Sense (more than 4-digit numbers), Computation Operations, Fractions, Length, Weight, Capacity, Time, Money, Geometry, Perimeter of Various Shapes, Symmetry, Conversions, Data Handling.

**Section-3:** Syllabus as per Section-2.

**Section-4:** Higher Order Thinking Questions - Syllabus as per Section-2.

### Exam Structure

Levels	Details
Level 1	All students are eligible
Level 2	Top 5% of the participating students in Level 1 exam

#### Note:

- ❑ **Level 1 Olympiad Questions:** 60% from class 4 syllabus + 40% from class 3 syllabus.
- ❑ **Level 2 Olympiad Questions:** From class 4 syllabus only.
- ❑ **Achievers Section Questions:** From class 4 syllabus only.



### Exam Pattern

Levels	Sections	Questions	Marks/Question	Total Marks
Level 1	1: Logical Reasoning	10	1	10
	2: Mathematical Reasoning	10	1	10
	3: Everyday Mathematics	10	1	10
	4: Achievers Section	5	2	10
	<b>Total</b>	<b>35</b>		<b>40</b>
Level 2	1: Mathematics	30	1	30
	2: Achievers Section	5	2	10
	<b>Total</b>	<b>35</b>		<b>40</b>

## Silverzone Olympiad (iOM)

### Exam Details

Feature	Information
Exam Frequency	Conducted annually, two dates to choose from
Exam Mode	Offline, conducted in schools during school hours
Medium	English
Exam Duration	40 minutes
Type of Questions	Multiple Choice Questions (Objective Type)

## Syllabus

### Section 1:

- ❑ **Numbers and Their Operations:** Number Sense and Numeration, Addition and Subtraction Multiplication and Division
- ❑ **Parts and Wholes:** Fractions and Decimals
- ❑ **Money and Unitary Methods:** Money, Unitary Methods
- ❑ **Area and Its Boundary:** Perimeter and Area
- ❑ **Geometry:** Geometrical Shapes
- ❑ **Graphical Representation of Data:** Data handling

### Exam Structure

Levels	Details
Level 1	All students are eligible
Level 2	Top 1000 rank holders (Minimum 50% marks & Above)
Level 3	1st rank holders at Level 2

### Exam Pattern

Sections	Questions	Marks/Question	Total Marks
Section 1: Mathematics	20	3	60
Section 2: Reasoning and Aptitude	5	3.5	17.5
Section 3: Scholar's Zone	5	4.5	22.5
Total	30		100

**Note:** There is no negative marking for wrong answers.

## Hindustan Olympiad

### Exam Details

Detail	Information
Exam Frequency	Once a year
Exam Mode	Online
Duration	120 minutes
Medium	Hindi or English
Type of Questions	Multiple Choice Questions (Objective Type)

**Note:** An additional 10 minutes is provided for reading the instructions and filling the OMR sheet.

### Exam Structure

Levels	Details
Level 1	All students are eligible (open-book exam)
Level 2	Top 10% of participants (proctored exam)

### Exam Pattern

Sections	Questions	Marks/Question	Total Marks
Section A: Mathematics	30	1	30
Section B: English	30	1	30
Section C: Science	20	1	20
Section D: General Knowledge	10	1	10
Section E: Logical Reasoning	10	1	10
Total	100		100

**Note:** There is no negative marking for wrong answers.

## National Level Science Talent Search Examination (NSTSE)

### Exam Details

Feature	Details
Exam Frequency	Once a year
Exam Mode	Online & Offline
Duration	60 minutes
Medium	English
Type of Questions	Multiple Choice Questions

## Syllabus

### Sections:

- ❑ **Section A (Mathematics):** Large Numbers, Addition and Subtraction, Multiplication and division, Fractions, Length, Weight, Capacity, Time, Geometry.

- ❑ **Section B (General Science):** Plant life, Animal life, Food & Digestion, Health & Hygiene, Teeth & Microbes, Safety & First Aid, Our Clothes, Our Universe, Matter and Materials, Force Work and Energy.
- ❑ **Critical Thinking:** This section includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making, higher order thinking

### Exam Pattern

Sections	Questions	Marks/Question	Total Marks
Section A: Mathematics	25	1	25
Section B: General Science	30	1	30
Section C: Critical Thinking	5	1	5
Total	60		60

**Note:** There is no negative marking for wrong answers.

## Southeast Asian Mathematical Olympiad (SEAMO)

### Exam Details

Feature	Information
Exam Frequency	Once a year
Exam Mode	Online
Duration	90 minutes
Medium	English
Type of Questions	Multiple Choice Ques. & Open-ended Ques.

## Syllabus

Time, Addition and Subtraction Multiplication, Division, Remainder problem, Number pattern, Number puzzle, Counting, Shortest path, Queuing problem, Pigeonhole principle, IQ, Logic, Odd and even numbers, Sum of a number sequence, Working backwards, Speed, Values of ones digit

### Exam Pattern

Sections	Questions	Marks/Question	Total Marks
Section A: MCQs	10	3	30
Section B: MCQs	10	4	40
Section C: Open-ended Ques	5	6	30
Total	25		100

**Note:** There is no negative marking for wrong answers.



# How to Use this Book

This book is structured to support your learning journey of preparing for your Olympiad exams through a variety of engaging and informative elements. Here's how to make the most of it:

The concept map appears to be a comprehensive study aid that outlines key concepts in a structured format. Use it to understand the chapter's concepts and as a quick reference to recall important highlights.

CuriousJr brings real-life questions that make you think and wonder. These questions help you see how what you learn connects to the world around you.

CuriousJr

**Curious Jr**

1. The Jungle Kingdom Zoo is hosting its annual "Wild New Year" celebration with special animal exhibits and conservation workshops. The zoo is expecting huge crowds of young wildlife enthusiasts!

Transportation Challenge:

- January: 9,300 children signed up for the "Arctic Adventure" (polar bear and penguin exhibits)
- February: 11,200 children registered for the "Rainforest Explorer" (tropical birds and monkey habitats)

The zoo needs to:

1. Arrange electric safari buses (to protect the environment)
2. Ensure equal daily attendance (same number of children visit each day in a month)
3. Use the same bus capacity for both months; (all buses must be completely full)
4. Minimize the total number of buses used across both months

- (i) What is the highest number of students that can be seated in each bus?
- (ii) What is the minimum number of buses required daily in the month of January?
- (iii) If the daily expense of 1 bus is ₹9,500, then what will be the total expense of all the buses per day in February (28 days)?

2. A group of students is preparing relief kits for flood-affected children. They collected 1,200 notebooks and 900 pencils. They want to prepare identical kits using all the items, with no item left over and the maximum number of kits possible.

- (i) Find the maximum number of kits made.
- (ii) How many notebooks and pencils will be packed in each kit?

Concept Map

**Example** Round 567892 to the nearest thousand.

**Step 1** Identify the place value you want to round to (nearest ten).

**Step 2** Look at the digit to the right of the tens place (the ones place). The digit is 2.

**Step 3** Since 2 is less than 5 we leave the tens place as is and change the ones place to 0.

**Round Number:** 567890

*Rules to Remember*

(i) If a smaller value letter after a bigger value letter, you add them together.

(ii) If a smaller value letter comes before a bigger value letter, you subtract.

(iii) Dropping Letters:

- 1. If the number is only 1 digit:
  - $\text{IX} = 9$  or  $\text{VIIII}$
  - $\text{IIII} = 4$  or  $\text{IIII}$
  - $\text{X} = 10$  or  $\text{X}$
  - $\text{V} = 5$  or  $\text{V}$
  - $\text{D} = 500$  or  $\text{D}$
  - $\text{C} = 100$  or  $\text{C}$
- 2. If a smaller Roman numeral comes between two bigger ones, you take it away from the bigger one.
  - $\text{XII} = 12$  is between two X's. We subtract it from the 20 = (between two X's) - 19.

*Extension*

**Number Sense**

*Roman Numerals*

**Roman Numerals Chart**

Roman	Hindu-Arabic system
I	1
II	2
III	3
IV	4
V	5
VI	6
VII	7
VIII	8
IX	9
X	10
C	100
D	500
M	1000

**Example** Round 6781 to the nearest hundred.

**Step 1** Look at the thousandth place = 6

**Step 2** Look at the digit to the right = 7

**Step 3** Since 7 is 5 or more, so increase the hundredth place.

**Step 4** Group the rest to zeros.

**Round Number:** 7000

*Extension*

**Roman Numerals Chart**

Roman	Hindu-Arabic system
I	1
II	2
III	3
IV	4
V	5
VI	6
VII	7
VIII	8
IX	9
X	10
C	100
D	500
M	1000

**Example** Round 456789 to the nearest ten thousand.

**Step 1** Identify the place value you want to round to (nearest ten thousand).

**Step 2** Look One Place to the Right, check the number just after the place you're rounding.

**Step 3** If it is 5 or more, go up.

**Step 4** If the number is 5, 6, 7, 8, or 9, make the rounding digit zero and move.

**Step 5** 4, If it is 4 or less, keep it the same.

**Step 6** If the number is 4, 0, 1, 2, 3, or 4, leave the rounding digit as is.

**Step 7** One the last 10 zeros.

**Step 8** All numbers after the rounded digit become zeros.

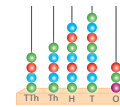
*Extension*

**Roman Numerals Chart**

Roman	Hindu-Arabic system
I	1
II	2
III	3
IV	4
V	5
VI	6
VII	7
VIII	8
IX	9
X	10
C	100
D	500
M	1000

**BEGINNER'S** **MCQs**

1. What is the Roman numeral for the number 64?  
(A) LXVI (B) XLIV  
(C) LXV (D) LIV
2. Find the estimated difference between the greatest and smallest 4-digit number that can be formed from the digits 9, 3, 7, and 2 (using each digit only once), when each number is rounded off to the nearest hundred's place.  
(A) 7,300 (B) 7,400  
(C) 7,200 (D) 7,100
3. If P is the greatest 4-digit number that can be formed from the digits 5, 0, 8 and 2 using each digit at least once, then what will be the round-off value of P when it is rounded off to the nearest hundred's place?  
(A) 8,500 (B) 8,000  
(C) 8,600 (D) 5,800
4. Find the estimated value of the number shown on the abacus when rounded off to the nearest hundred.



- (A) 45,800 (B) 45,700  
(C) 46,000 (D) 45,780
5. Which of the following gives the greatest value?
- (A) CMXX + CL (B) DCC - L  
(C) CML + CCXV (D) MCC - XC

### Beginner's MCQs

Beginner's MCQs has simple questions to help you remember and understand basic concepts. This will help to practice what you've learned and make your concepts strong.

## ACHIEVERS

## MCQs

### 1. Select the INCORRECT statement.

- (A) A line extends infinitely in both directions and has no endpoints.  
 (B) A ray has one endpoint and extends infinitely in one direction.  
 (C) A line segment has two endpoints and a fixed length.  
 (D) A ray is exactly half the length of a line.

### 2. Which of the following is an open curve?



### 3. Which of the following is a polygon?



### 4. Carefully read the following statements and choose the correct answer:

- Statement 1: Radius of a circle is the longest chord.  
 Statement 2: The longest chord of a circle always passes through the centre of the circle.  
 (A) Both Statement 1 and Statement 2 are correct.  
 (B) Both Statement 1 and Statement 2 are incorrect.  
 (C) Statement 1 is correct, but Statement 2 is incorrect.  
 (D) Statement 1 is incorrect, but Statement 2 is correct.

### 5. Match the perimeter of the shapes in Column A with those in Column B and choose the correct option:

	Column-A		Column-B
p.		(i)	40 cm
q.		(ii)	24 cm

## Achievers Multiple Choice Questions

In this section, you'll get multiple-choice questions (MCQs) to strengthen your preparation. These questions help you practice in a way that is useful for exams.

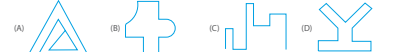
This section includes questions that were asked in past exams. Solving these helps you understand questions pattern, difficulty level, & most important topics. It's a great way to prepare for the actual exam with full confidence.

## Dreamer's Section PYQs

## DREAMERS' SECTION

## PYQs

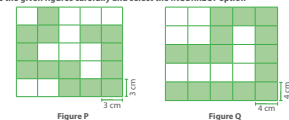
### 1. Which of the following is an open figure?



### 2. An athlete runs around a rectangular field of length 95 m and breadth 85 m. How much total distance will he cover in 5 rounds of the field?

- (A) 900 m (B) 1325 m (C) 1600 m (D) 1800 m

### 3. Observe the given figures carefully and select the INCORRECT option

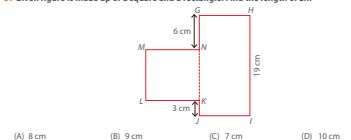


- (A) The perimeter of shaded part of figure P is 90 cm.  
 (B) The perimeter of shaded part of figure Q is 112 cm.  
 (C) The number of lines of symmetry in figure Q is 1.  
 (D) Both B and C.

### 4. Rashmi walked 4 times around a square field each side of which is 55 m long. How much total distance did she cover?

- (A) 800 m (B) 440 m (C) 880 m (D) 650 m

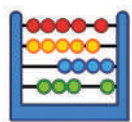
### 5. Given figure is made up of a square and a rectangle. Find the length of LK.



- (A) 8 cm (B) 9 cm (C) 7 cm (D) 10 cm



# CONTENTS



## CHAPTER-1: Number Sense

1-17



## CHAPTER-2: Computation Operations

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88-108



## CHAPTER-7: Logical Reasoning

109-118

**Place Value:** The value of a digit at its place in a number.

#### Place Value

Lakhs   Ten Thousands   Thousands   Hundreds   Tens   Ones  
(T Th)

**Ten Thousands (T Th):** For 5-digit numbers

Now we have two more new place values

The ten thousands place represents numbers in the range of 10,000 to 99,999.

**Example:**

😊 In the number 56,912, the digit '5' is in the ten-thousandth place. This means it represents 50,000

**Lakhs:** For 6-digit numbers

The Lakhs place represents numbers in the range of 1,00,000 to 9,99,999.

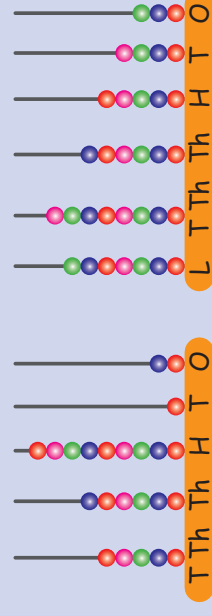
😊 In the number 7,86,543, the digit '7' is in the Lakhs place. This means it represents 7,00,000.



#### Place Value

#### Understanding Place Values with an Abacus

We represent the digits using an abacus.



Number → 56912

Number → 7865423

**Example:**

**Numerals:** 23,456   189,012

**In Words:** One Lakh Eighty-nine Thousand Twelve.

Twenty-three Thousand Four Hundred Fifty-six.

**Zeros in a number act as place holders.**

In 1,89,012, the '0' is in the hundreds' place. This means there are "zero hundred." If the zero wasn't there, we'd just have '18912', which is eighteen thousand nine hundred twelve.

#### Reading And Writing Digits For Five-Digit And Six-Digit Numbers

### Number Sense

#### Expanded and Standard Form

**Example:**

**Five-digit Numbers**

$$72,498 = 70,000 + 2,000 + 400 + 90 + 8.$$

Standard form

Expanded form

**Six-digit Numbers**

$$9,32,189 = 9,00,000 + 30,000 + 2,000 + 100 + 80 + 9.$$

Standard form

Expanded form



### (i) five-digit numbers and six-digit numbers.

**Example:** Compare: 45678 (five-digit number) and 123456 (six-digit number).

**Step 1:** Count the number of digits.

☺ 45678 has 5 digits. 123456 has 6 digits.

**Step 2:** Compare the number of digits.

☺ A six-digit number is always greater than a five-digit number.

$$123456 > 45678$$

### (ii) Comparing Two Six-Digit Numbers with Different Digits:

**Example:** Compare: 345478 and 345678.

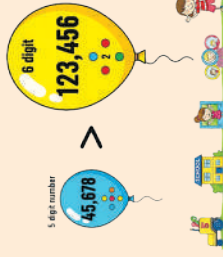
**Step 1:** Both have 3 in the lakhs place.

**Step 2:** Both have 4 in the ten-thousands place.

**Step 3:** Both have 5 in the thousands' place.

**Step 4:** In the hundreds' place, 345678 has 6, and 345478 has 4.

Therefore 345678 is greater than 345478



## Exploring Number Formation

### Creating numbers when Digits are in repetition.

**Example 1:** Find the greatest five-digit number that can be formed by repeating the digits 5, 4, 3, 2, and 1

**Step 1:** Find the Biggest Digit

Look at the digits 5, 4, 3, 2, and 1. The biggest one is 5.

**Step 2:** Start with the Biggest Place

To make the biggest number, put the biggest digit (5) at the start.

**Step 3:** Fill All Places with the Same Digit

Since we can use the same digit again and again, put 5 in all five places.

So, the biggest 5-digit number is: 55,555.

**Example 2:** Form the smallest six-digit number using the digits 2, 3, 4, 5, 6 (with repetition):

Smallest Number: 222222

**Example 3:** Form the smallest five-digit number using the digits 0, 1, 4, 5, 6 (with repetition):

**Step 1:** Don't start with 0

A number can't begin with 0, so we start with 1, the next smallest digit.

**Step 2:** Use the smallest digits next

To make the number as small as possible, use 0 in the other places.

☺ 10,000 is the smallest 5-digit number.

## Comparing Numbers

# Number Sense

## Ordering Numbers

### Ascending and Descending

**Ascending Order:** From the smallest value to the greatest value.

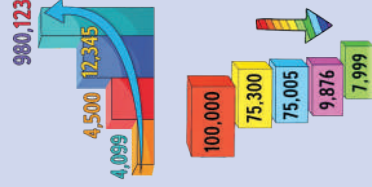
**Example:** 4500, 980123, 12345, 4099

**Descending Order:** From the greatest value to the smallest value.

**Example:** 75,300, 9876, 1,00,000, 7999, 75005

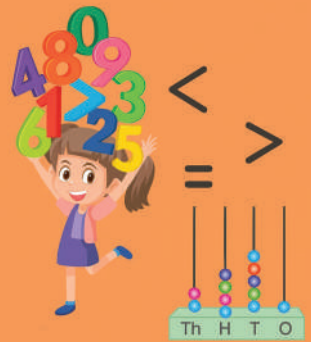
A number cannot start with zero because zero has no value in the beginning and does not change the value of the number.

**Example:** The number 012 is the same as 12.



# Number Sense

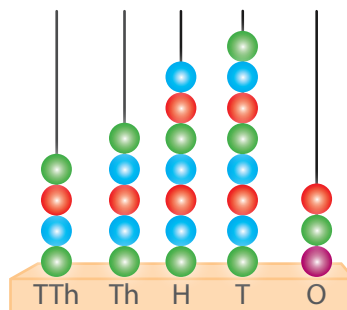
## CHAPTER-1



## BEGINNER'S

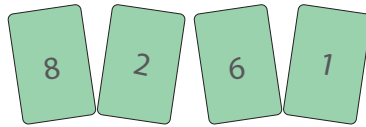
## MCQ's

- What is the Roman numeral for the number 64?
  - LXVI
  - XLIV
  - LXIV
  - LIV
- Find the estimated difference between the greatest and smallest 4-digit number that can be formed from the digits 9, 3, 7, and 2 (using each digit only once), when each number is rounded off to the nearest hundred's place.
  - 7,300
  - 7,400
  - 7,200
  - 7,100
- If P is the greatest-4 digit number that can be formed from the digits 5, 0, 8 and 2 using each digit at least once, then what will be the round-off value of P when it is rounded off to the nearest hundred's place?
  - 8,500
  - 8,000
  - 8,600
  - 5,800
- Find the estimated value of the number shown on the abacus when rounded off to the nearest hundred.



- 45,800
  - 45,700
  - 46,000
  - 45,780
- Which of the following gives the greatest value?
    - CMXX + CL
    - DCC - L
    - CML + CCXV
    - MCC - XC

6. In one round of a number game, Raj got the given number cards. Which of the following greatest 5-digit number he can form by using each digit at least once?



- (A) 88,621 (B) 86,821  
(C) 86,218 (D) 68,821
7. David bought a new television. The tag on the television shows its price after rounding it off to the nearest hundred. The rounded price is ₹12,300. Which of the following could be the actual price of the television?



- (A) ₹12,351 (B) ₹12,249  
(C) ₹12,328 (D) ₹12,401
8. If X is the greatest 5-digit number that can be formed by using the digits, 8, 4, 1, 7 and 2 each only once, then the place value of the hundreds place digit of X is \_\_\_\_.
- (A) 4 (B) 40  
(C) 400 (D) 7,000

9. Compare and fill in the box.

$$MCD + CXC - L \quad \text{_____} \quad MD - CCC + LX$$





- (A) > (B) <  
(C) = (D) Can't be determined

10. Who among the following holds the greatest value?



- (A) P (B) Q  
(C) R (D) Can't say
11. The sum of 7381 and 2519 when each number is rounded off to the nearest hundred is \_\_\_\_.
- (A) 9900 (B) 9800  
(C) 10000 (D) 9700
12. In which of the following options is 3 not at the ten-thousandth place?
- (A) 34,567 (B) 13,456  
(C) 30,123 (D) 39,876

13. Which of the following is equivalent to “Four lakh thirty-five thousand two hundred and nine”?

 (P)	 (Q)	 (R)	 (S)
--	--	--	--

- (A) P                      (B) R                      (C) S                      (D) Q

14. The greatest 5-digit even number formed by using all the given digits, each only once, is \_\_\_\_\_.



- (A) 86,410                      (B) 86,401                      (C) 86,140                      (D) 84,610

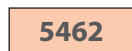

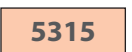
15. If in the number 68147 the digits at the thousands place and tens place are interchanged, then the original number is \_\_\_\_\_ the new number.

- (A) Greater than                      (B) Smaller than  
(C) Equal to                      (D) Can't be determined

16. There are sixty-eight thousand five hundred and two trees in a park. Which of the following numeral shows the number of trees in the park?

- (A) 68,520                      (B) 68,502  
(C) 68,052                      (D) 65,802

17. Which of the following boxes will show a number greater than 5400 but less than 5600, if the numbers are rounded off to the nearest hundred?

 A	 B	 C
--	--	---

- (A) A                      (B) B  
(C) C                      (D) None of these

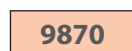
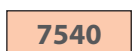
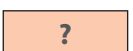
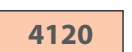
18. Select the CORRECT match.

- (A) LV + IX = 64                      (B) C – XLV = 50  
(C) DCC + LXI = 751                      (D) M – CD = 500

19. Which of the following options is INCORRECT?

- (A) DL + LX = 610                      (B) CM – XL = 860  
(C) CXX + LXXX = 200                      (D) MCC – CCL = 940

20. Which should not be placed in the box to have the numbers in order from the greatest to the least?

 A	 B	 C	 D
--	--	--	---

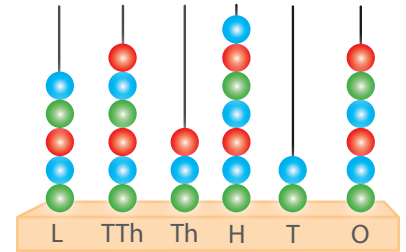
- (A) 6800                      (B) 5900                      (C) 4000                      (D) 5000

21. Which of the following are arranged in ascending order?

- (A) XC, LXV, LXXIX, CXX (B) LXV, LXXIX, XC, CXX  
(C) CXX, XC, LXXIX, LXV (D) LXXIX, LXV, CXX, XC

22. What number does the abacus show?

- (A) Fifty-six thousand three hundred twenty-six.  
(B) Fifty-six thousand seven hundred twenty-six.  
(C) Five lakh sixty-three thousand seven hundred twenty-six.  
(D) Four lakh sixty-three thousand seven hundred twenty-six.



23. Face value of 5 in \_\_\_\_\_ 345678.

- (A) 6800 (B) 5600  
(C) 5000 (D) 5

24. Which of the following are arranged in descending order?

- (A) CL, CXLV, CXXXVIII, CLXIV (B) CLXIV, CL, CXLV, CXXXVIII  
(C) CXLV, CXXXVIII, CLXIV, CL (D) CXXXVIII, CLXIV, CL, CXLV

25. Select the correct option for the number: 107890

- (A) One lakh seven thousand eight hundred ninety.  
(B) Ten thousand seventy-eight hundred ninety.  
(C) seven thousand eight hundred ninety.  
(D) One lakh seven thousand ninety.

**FILL THE CORRECT OPTION BY HB PENCIL**

1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	8. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	15. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	22. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	9. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	16. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	23. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	17. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	24. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	11. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	18. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	25. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	12. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	19. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	
6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	13. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	20. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	
7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	14. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	21. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	

**1. The Roman numeral for the greatest 3-digit number is \_\_\_\_\_.** (2024)

- (A) DCCXCIX (B) CMCXXI (C) CMXCIX (D) CDXCIX

**2. Read the given statements carefully and state T for true and F for false,** (2024)

- (i) The value of DCCCXIX is 819.  
 (ii) The number 79523 when rounded off to the nearest thousands place becomes 80000.  
 (iii) In the set of numbers, 4583, 7592 and 3186, if the digits at thousands place and ones place are interchanged, then the ascending order of new numbers formed is 3681, 4385 and 7295.

(i) (ii) (iii)

- (A) T T F  
 (B) T F T  
 (C) F T T  
 (D) F F T

**3. When rounded off to the nearest 1000, the population of Sikkim becomes 608000. Which of the following could be the actual population of Sikkim?** (2024)

- (A) 607688 (B) 607488 (C) 617695 (D) 608988

**4. Which of the following gives the greatest value?** (2023)

- (A) CMLXXCIX (B) DCCV-CXV (C) CDLIV CCC (D) MCMXC - DCX

**5. If the digits at hundreds place and units place in each of the following numbers are interchanged, then find the Roman numeral for the new numbers formed.** (2023)

- (p) 3518 (q) 2917

(p)

(q)

- (A) MMMDCCCXV MMDCCXIX  
 (B) MMMDXVIII MMCMVII  
 (C) MMMDCCXIV MCMLXIX  
 (D) MMDCCCXV MCMXLIV

**6. Fill in the blanks and select the CORRECT option.** (2023)

- (i) The greatest 5-digit number that can be formed by using the digits 3, 0, 5, 9 (use each digit at least once) is  
 (ii) The Roman numeral for the greatest 3-digit even number is  
 (iii) The number 57842 when rounded off to the nearest thousand place becomes

(i) (ii) (iii)

- (A) 90530 CMXCVIII 59000  
 (B) 99530 CMXCVIII 58000  
 (C) 99530 CMXCIX 58000  
 (D) 90053 CMXCIX 57000



**7. Read the given statements carefully and select the CORRECT option.** (2022)

**P:** Rounded off the number 584921 to the nearest thousands gives 585000.

**Q:** Sum of place values of the digit 2 and 5 in the number 25890 is 26000.

- (A) Only P is true (B) Only Q is true  
(C) Both P and Q are true (D) Neither P nor Q is true

**8. Fill in the blanks and select the CORRECT option.** (2022)

(i) The difference between the place value and the face value of digit 7 in 57254 is

(ii) The number 20853 when rounded off to nearest hundreds gives

(i) (ii)

- (A) 7007 20900  
(B) 6993 20900  
(C) 6993 21000  
(D) 7017 20800

**9. Compare and fill the boxes using >, < or =.** (2021)

(i) CXLVII  CLII

(ii) CCV  CLXXIX

(iii) DXLIX  DLXIX

(i) (ii) (iii)

- (A) < = >  
(B) > < =  
(C) < > <  
(D) > > >

**10. Ramya bought the given microwave. What is the number name for the cost of the given microwave?**

(2021)

- (A) Twenty thousand eight hundred four seventy five  
(B) Two eighty four thousand seventy five  
(C) Twenty eight thousand four thousand seventy five  
(D) Twenty eight thousand four hundred seventy five



**11. Which of the following are arranged in the ascending order?**

(2020)

- (A) CXLVI, CLXXXIX, DLXVIII, CMLXXVII  
(B) CXLVI, CMLXXVII, CLXXXIX, DLXVIII  
(C) CMLXXVII, DLXVIII, CLXXXIX, CXLVI  
(D) CMLXXVII, CLXXXIX, DLXVIII, CXLVI

**12. Read the given statements carefully and state T for true and F for false.**

(2020)

(i) Roman numeral for largest 3-digit number is CMXCIX.

(ii) The sum of face value of 8 and 6 in the number 85642 is 100.

(iii) The largest 5-digit number formed from the digits 9, 6, 0, 5, 2 (without repetition) is 95620.

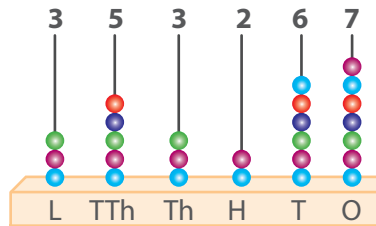
(i) (ii) (iii)

- (A) T T F  
(B) T F T  
(C) T F F  
(D) F T T

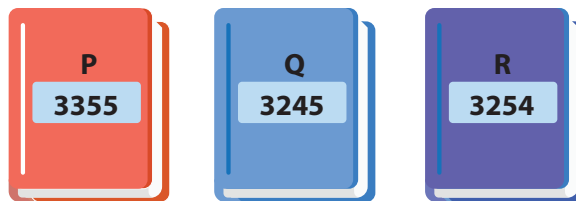
13. Which should not be placed in the box to have the numbers in order from the greatest to the least? (2020)

7952	5642	?	2341
------	------	---	------

- (A) 2431 (B) 3241 (C) 5611 (D) 5946
14. The number shown on the abacus is written as \_\_\_\_\_. (2019)



- (A) Three hundred fifty three hundred two hundred and sixty seven  
 (B) Three ten thousand fifty three hundred thousand two hundred sixty seven  
 (C) Three lakh fifty three thousand two hundred and sixty seven  
 (D) Thirty five thousand three thousand two hundred sixty seven
15. Which of the following books will shows the number greater than 3280 but less than 3390, if the numbers are rounded off to the nearest hundreds? (2019)



- (A) P (B) R (C) Q (D) None of these

**FILL THE CORRECT OPTION BY HB PENCIL**

1. (A) (B) (C) (D)	5. (A) (B) (C) (D)	9. (A) (B) (C) (D)	13. (A) (B) (C) (D)
2. (A) (B) (C) (D)	6. (A) (B) (C) (D)	10. (A) (B) (C) (D)	14. (A) (B) (C) (D)
3. (A) (B) (C) (D)	7. (A) (B) (C) (D)	11. (A) (B) (C) (D)	15. (A) (B) (C) (D)
4. (A) (B) (C) (D)	8. (A) (B) (C) (D)	12. (A) (B) (C) (D)	

**1. Read the given statements carefully and state T for true and F for false.**

- (i) The value of MMCCCXXXIX is 1,339.
  - (ii) The number 15,723, when rounded off to the nearest thousand's place, becomes 16,000.
  - (iii) In the set of numbers, 34,583, 75,492, and 21,386, if the digits at the thousands place and ones place are interchanged, then the ascending order of the new numbers formed is 23,683, 45,385, and 71,492.
- (A) T, T, F                      (B) T, F, T                      (C) F, T, F                      (D) F, F, T

**2. If the digits at the hundreds place and units place in each of the following numbers are interchanged, find the Roman numeral for the new numbers formed:**

**(p) 6,732**

**(q) 3,948**

- |                    |               |
|--------------------|---------------|
| (A) MMMMDCCCXV     | MMDCCXIX      |
| (B) MMMMDCCCLV     | MMDCXIX       |
| (C) MMMMDCCCLXV    | MMDCCXIV      |
| (D) MMMMMMCCXXXVII | MMMDCCCXLVIII |

**3. Fill in the blanks and select the CORRECT option.**

- (i) The greatest 5-digit number that can be formed by using the digits 5, 0, 7, 3 (use each digit at least once) is \_\_\_\_\_
- (ii) The Roman numeral for the greatest 3-digit ODD number is \_\_\_\_\_
- (iii) The number 5,742 when rounded off to the nearest thousand place becomes \_\_\_\_\_.

- | (i)        | (ii)     | (iii) |
|------------|----------|-------|
| (A) 75,730 | CMXCIX   | 6,000 |
| (B) 77,530 | CMXCIX   | 6,000 |
| (C) 75,370 | CMXCVIII | 5,000 |
| (D) 77,350 | CMXCV    | 6,000 |

**4. Read the statements below and choose the correct option.**

**P:** When the number 58,492 is rounded off to the **nearest thousand**, the result is **59,000**.

**Q:** In the number 79,354, the place value of digit 7 is 70,000, and the place value of digit 9 is 90. Their sum is 7,090.

- (A) Only statement P is true.                      (B) Only statement Q is true.  
 (C) Both P and Q are true.                      (D) Neither P nor Q is true.

**5. Complete the sentences below and choose the correct option.**

- (i) What is the difference between the place value and face value of the digit 9 in the number 58,492?
- (ii) What is the result when the number 74,853 is rounded off to the nearest hundred?

- | (i)     | (ii)   |
|---------|--------|
| (A) 81  | 74,800 |
| (B) 81  | 74,900 |
| (C) 90  | 74,900 |
| (D) 891 | 75,000 |

6. Compare the following Roman numerals and fill in the boxes with the correct symbol: ( $>$ ,  $<$ ,  $=$ )

(a) DCCCXCIX ☐

DCCCCLII

(b) 81 ☐

MDLXXIX

(c) 90 ☐

MDCCXC

(A)  $> = <$

(B)  $< > =$

(C)  $< < >$

(D)  $> > >$

7. A factory made 1,95,080 gadgets in the first half of the year. In the second half, it made 96,470 more gadgets than the first half. Write the number name for the number of gadgets made in the second half of the year.

(A) Two lakh ninety-one thousand five hundred and fifty

(B) One lakh ninety-one thousand five hundred and fifty

(C) Two lakh ninety-five thousand five hundred and seventy

(D) Two lakh ninety-one thousand five hundred

8. Four students bought stationery items for a school project. The prices of each item were written in Roman numerals:



Which item was the second most expensive?

(A) The set of markers

(B) The geometry box

(C) The science kit

(D) The pack of sticky notes

9. Which of the following expressions results in the greatest value?

(A)  $(CCLXXX - CLXV) + XC$

(B)  $(CXL + L) - XXX$

(C)  $(XC + LX) - XX$

(D)  $(C + XLV) - XXV$

10. Using the digits 1, 0, 5, 8, 3, and 6 (using each digit only once), form the greatest 6-digit odd number and the smallest 6-digit odd number. What is the estimated difference between these two numbers when each is rounded off to the nearest ten thousand's place?

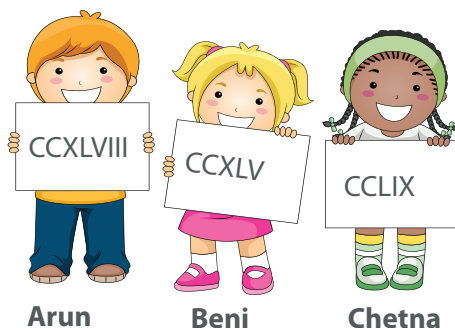
(A) 760000

(B) 770000

(C) 780000

(D) 765000

11. Three friends, Arun, Beni, and Chetan, collected stickers. Their counts are recorded in Roman numerals:



Arun

Beni

Chetan

Who collected the second highest number of stickers, and how many stickers did they collect in total?

(A) Beni, 245 stickers

(B) Arun, 248 stickers

(C) Chetan, 259 stickers

(D) Arun, 259 stickers

**12. A construction project began in the year MCMLXXXIX. If the project took CCLVII years to complete, in what Roman numeral year was it finished?**

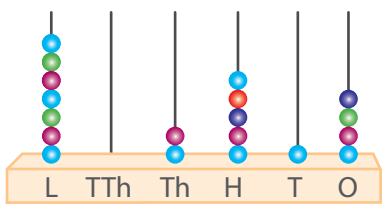
- (A) MMCCXLVI                      (B) MMCCXLV                      (C) MMCCXLVI                      (D) MMCCCLVI

**13. Which of the following are arranged in descending order?**

- (A) CM, DCCL, DXC, CD                      (B) DCCL, DXC, CM, CD  
(C) CD, DXC, DCCL, CM                      (D) CM, CCCL, DXC, CD

**14. The number shown on the abacus is written as \_\_\_\_\_**

- (A) Seven lakh twenty thousand five hundred and fourteen  
(B) Seventy-two thousand five hundred fourteen  
(C) Seven lakh two thousand five hundred and fourteen  
(D) Seven million two thousand five hundred and fourteen



**15. Match the following and select the correct option.**

**(A)**

- (p) Three lakh three Thousand three hundred nine  
(q) Thirty thousand five hundred twelve  
(r) Two lakh thirty thousand twenty nine  
(s) Five lakh three Thousand three hundred nine

**(B)**

- (i) 30,512  
(ii) 50,3309  
(iii) 30,3309  
(iv) 23,0029

- (A) (p) → (iii); (q) → (i); (r) → (iv) and (s) → (ii)  
(B) (p) → (iv); (q) → (ii); (r) → (iii) and (s) → (i)  
(C) (p) → (iii); (q) → (iv); (r) → (i) and (s) → (ii)  
(D) (p) → (ii); (q) → (i); (r) → (iii) and (s) → (iv)

**FILL THE CORRECT OPTION BY HB PENCIL**

1. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	5. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	9. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	13. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
2. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	6. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	10. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	14. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
3. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	7. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	11. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	15. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
4. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	8. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	12. <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	

**1**

- (i) Meet Zoe! Zoe loves to travel and explore. This summer, he's using a map to plan trips to different cities. Zoe has a rule: when he talks about long distances, he rounds them to the "nearest big thousand" to make it easier to remember. Let's help Zoe with his travel plans!



Zoe is looking at distances to different cities.

- (a) The city of Green Valley is 2,300 kilometers away. Is it true or false that 2,300 is closer to 2,000 than to 3,000?
  - (b) The city of Blue Lake is 7,800 kilometers away. Is it true or false that 7,800 is closer to 7,000 than to 8,000?
  - (c) The city of Sunny Beach is 4,500 kilometers away. Is it true or false that 4,500 is exactly in the middle of 4,000 and 5,000?
- (ii) Zoe is trying to quickly figure out the nearest thousand for these cities. Help him to fill these blanks correctly.
- (a) The city of Bright Hills is 1,200 kilometers away. The nearest thousand is \_\_\_\_\_.
  - (b) The city of Starry Nights is 8,900 kilometers away. The nearest thousand is \_\_\_\_\_.
- (iii) Zoe has a list of cities and their distances. Help him match each exact distance to its rounded nearest thousand!



- |                        |              |
|------------------------|--------------|
| (a) City A: 4,100 km → | (p) 2,000 km |
| (b) City B: 7,950 km → | (q) 4,000 km |
| (c) City C: 2,490 km → | (r) 8,000 km |



2

Aarav and Leo are at the school fair. Leo is careful with his money, but Aarav rounds prices to make them sound cheaper.

Can you help Leo check if Aarav's prices are fair? Aarav is checking the prices for some exciting activities at the fair.



(i) Help Aarav figure out the fairest "about" price for these fair attractions! Round to the nearest hundred or ten as asked.

(a) A special toy costs 138 rupees. To the nearest ten, it costs about \_\_\_\_\_ rupees.

(b) A brand new deluxe bicycle at the fair costs 4,735 rupees. To the nearest

thousand, it costs about \_\_\_\_\_ rupees.



(ii) Aarav has a list of exciting attractions and their real prices, written in Roman numerals. Leo, being careful with money, wants to know the "fairest nearest price" (rounded to the nearest ten rupees) for each, so he can make smart choices! Help them match the Roman numeral prices to their fairest nearest price.

	Roman Number	Nearest Price (Standard Number)
(a) Giant Slide Race	→ (p) CLXXXII	90
(b) Balloon Dart Game	→ (q) LXXXIX	110
(c) Face Painting Booth	→ (r) CVI	180
(d) Pony Ride Adventure	→ (s) CCXLIII	240

3

Three friends, Rahul, Priya, and Sam, are playing a game with number cards. They each pick some cards and try to make the biggest number possible. The cards Rahul picked are:



Rahul arranged his cards like this

(i) Has Rahul arranged his cards to get the biggest number possible?

Yes [ ] No [ ]

(ii) If you answered 'No' in the previous question, arrange the cards to get the biggest possible number. And write your answer.

\_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_

# ANSWER KEY



## Beginner's MCQs

1. (C)    2. (A)    3. (A)    4. (A)    5. (C)    6. (A)    7. (C)    8. (C)    9. (A)    10. (B)  
 11. (A)    12. (B)    13. (A)    14. (A)    15. (B)    16. (B)    17. (A)    18. (A)    19. (D)    20. (C)  
 21. (B)    22. (C)    23. (D)    24. (B)    25. (A)

## Dreamers' Section PYQs

1. (C)    2. (A)    3. (A)    4. (D)    5. (A)    6. (B)    7. (A)    8. (B)    9. (C)    10. (D)  
 11. (A)    12. (C)    13. (D)    14. (C)    15. (B)

## Achievers MCQs

1. (C)    2. (D)    3. (B)    4. (D)    5. (B)    6. (C)    7. (A)    8. (A)    9. (A)    10. (B)  
 11. (B)    12. (A)    13. (A)    14. (C)    15. (A)

## CuriousJr

1. (i) (a) TRUE                      (b) FALSE                      (c) TRUE  
 (ii) (a) Nearest thousand is 1,000.                      (b) Nearest thousand is 9,000.  
 (iii) (a) City A: 4,100 km --> (q) 4,000 km                      (b) City B: 7,950 km --> (r) 8,000 km  
           (c) City C: 2,490 km --> (p) 2,000 km  
 2. (i) (a) 140 rupees.                      (b) 5,000 rupees  
 (ii) (a) Giant Slide Race: CLXXXII → 180                      (b) Balloon Dart Game: LXXXIX → 90  
           (c) Face Painting Booth: CVI → 110                      (d) Pony Ride Adventure: CCXLIII → 240  
 3. (i) No                      (ii) 86420  
 4. (i) (a) Correct number sentence is: Four lakh seventy thousand one hundred three.  
           (b) 4,70,103

(ii) (a)

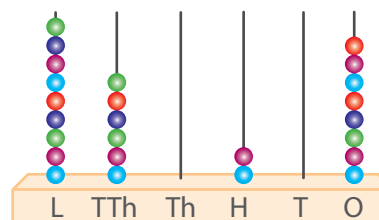
Nine  
Lakhs

Sixty  
Thousand

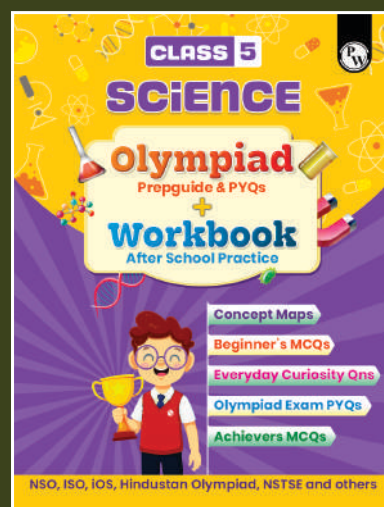
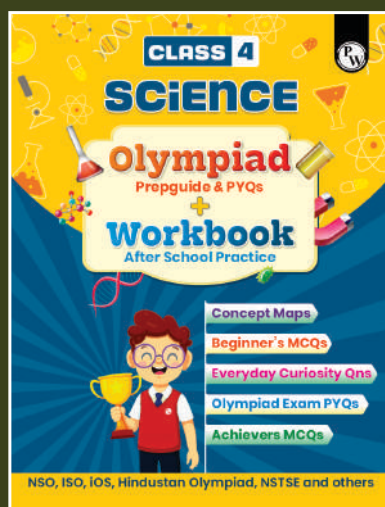
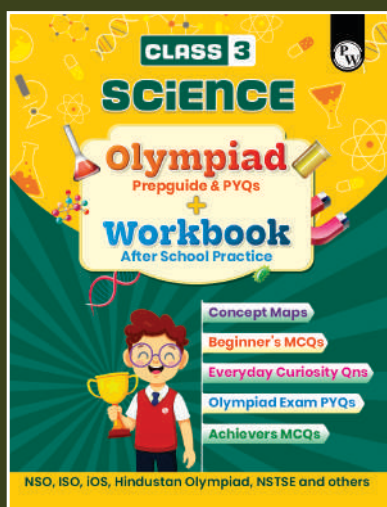
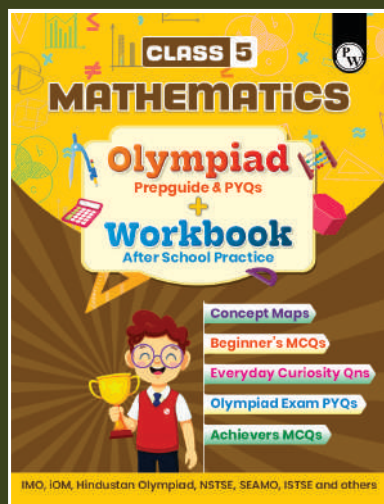
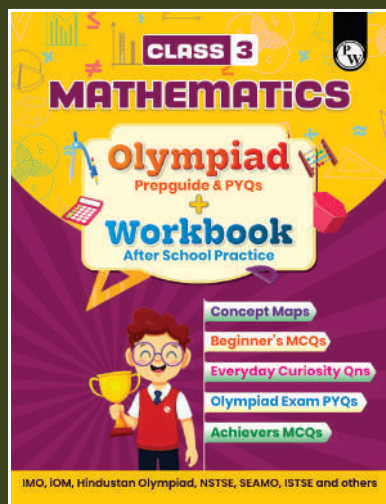
Two  
Hundred

Eight

- (b) Ones Rod (rightmost): Place 8 beads.  
 Tens Rod: Place 0 beads (leave this rod empty).  
 Hundreds Rod: Place 2 beads.  
 Thousands Rod: Place 0 beads (leave this rod empty).  
 Ten Thousands Rod: Place 6 beads  
 Lakhs Rod (leftmost): Place 9 beads.



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