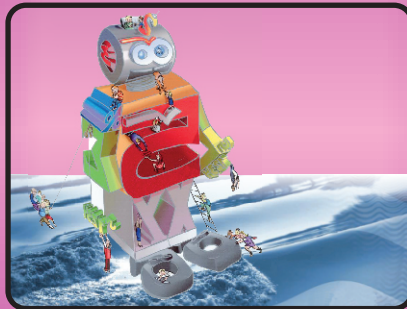*EtG*

OLYMPIAD EXPLORER

Workbook for

Nationwide Interactive MATHS Olympiad & Other National/International Olympiads/Talent Search Exams.

Based on CBSE, ICSE, GCSE, State Board Syllabus & NCF (NCERT)

100's of Q's with answers
- **Chapterwise Practice Q's**
- **Revision Q's**
- **Sample Paper**

Class 3

EduHeal Foundation
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EduHeal Foundation conducts 5 Olympiads annually reaching out to 3,500 + Schools
● 4 Lakh + Students ● 50,000 Coordinating Teachers and having 500 Resource persons
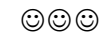in English / Maths / Science / Biotech / Computer & 300 Regional Coordinators.

PRIZES

WORKSHOP • TEACHER TRAINING PROG. • MAGAZINE/LAB GRANT • PRINCIPAL LEADERSHIP AWARD.

Contents

☺☺☺

SYLLABUS GUIDELINES
CLASS – III

**Based on CBSE, ICSE & GCSE Syllabus
& NCF guidelines devised by NCERT.**

1. Geometrical Shapes & Spatial Understanding.
- Creates shapes through paper folding, paper cutting.
- Identifies 2D shapes
- Describes the various 2D shapes by counting their sides, corners and diagonals.
- Makes shapes on the dotgrid using straight lines and curves.
- Creates shapes using tangram pieces.
- Matches the properties of two 2D shapes by observing their sides and corners (vertices).
- Tiles a given region using a tile of a given shape.
- Distinguishes between shapes that tile and that do not tile.
- Intuitive idea of a map. Reads simple maps (not necessarily scaled)
- Draws some 3D objects.

2. Numbers Number sequence upto 1000
- Reads and writes 3digit numbers.
- Expands a number w.r.t. place values.
- Counts in different ways starting from any number.
- Compares numbers.
- Forms greatest and smallest numbers using given digits.

3. Addition & Subtraction
- Adds and subtracts numbers by writing them vertically in the following two cases
  - without regrouping
  - with regrouping.
- Uses the place value in standard algorithm of addition and subtraction.
- Solves addition and subtraction problems in different situations presented through pictures and stories.
- Frames problems for addition and subtraction facts.
- Estimates the sum of, and difference between, two given numbers.

4. Multiplication
- Explains the meaning of multiplication (as repeated addition).
- Identifies the sign of multiplication.
- Constructs the multiplication tables of 2,3,4,5 and 10.
- Uses multiplication facts in situations.
- Multiplies two digit numbers using standard algorithm and Lattice multiplication algorithm.

5. Division
- Explains the meaning of division from context of equal grouping and sharing.

- Relates division with multiplication.
- Completes division facts – by grouping – by using multiplication tables.

6. Mental Arithmetic
- Adds and subtracts single digit numbers and two digit numbers mentally.
- Doubles two digit numbers mentally (result not exceeding two digits).

7. Money
- Converts Rupee to Paise using play money.
- Adds and subtracts amounts using column addition, and subtraction without regrouping.
- Makes rate charts and bills.

8. Measurement Length
- Appreciates the need for a standard unit.
- Measures length using appropriate standard units of length by choosing between centimetres and metres.
- Estimates the length of given object in standard units and verifies by measuring.
- Uses a ruler
- Relates centimetre and metre.

9. Weight
- Weighs objects using non standard units.
- Appreciates the conversion of weight.

10. Volume
- Measures and compares the capacity of different containers in terms of nonstandard units.
- Appreciates the conversion of volume.

11. Time
- Reads a calendar to find a particular day and date.
- Reads the time correct to the hour.
- Sequences the events chronologically.

12. Data Handling
- Records data using tally marks.
- Collects data and represents in terms of pictograph choosing appropriate scale and unit for display through pictographs.
- Draws conclusions from the data by discussing with the teacher.

13. Patterns
- Identifies simple symmetrical shapes and patterns.
- Makes patterns and designs from straight lines and other geometrical shapes.
- Identifies patterns in the numerals for odd and even numbers and in adding odd and even numbers.
- Partitions a number in different ways.
- Identifies patterns in his surroundings
- Identifies patterns in multiplication with, and dividing by 10s.

☺☺☺

Number System

Q.1. How do you write 46 using words?
(a) Sixty Four
(b) Forty Six
(c) Sixty Six
(d) None of these

Q.2. Which is two digit greatest number?
(a) 10
(b) 90
(c) 99
(d) none of these

Q.3. Which is greater?
74 **OR** 47

(a) 74
(b) 47
(c) both are equal
(d) none of these

Q.4. How do you write 108 using words?
(a) Eighty
(b) Eighty One
(c) One Hundred Eight
(d) None of these

Q.5. What is the 13th letter in this passage?
You can lead a horse to water, but you can't make him drink.
(a) u
(b) o
(c) r
(d) a

Q.6. Which is the 83rd letter in this passage?
As fast as she could go, Alice went down the hole after it, and did not once stop to think how in the world she was to get out.
(a) o
(b) s
(c) w
(d) i

Q.7. Is 5 even or odd?
(a) even
(b) odd
(c) can't say
(d) none of these

Q.8. Which is one digit highest number?
(a) 1
(b) 9
(c) 0
(d) none of these

Q.9. Which of the following number is Odd?
(a) 13
(b) 14
(c) 32
(d) none of these

Q.10. Is 43 – 20 even or odd?
(a) even
(b) odd
(c) can't say
(d) none of these

Q.11. Which of the following number is Even?
(a) 7   (b) 13
(c) 24   (d) none of these

Q.12. Rahul skip-counted, starting from 70. Until he reached 100, could he be counting by fives?
(a) yes   (b) no
(c) can't say   (d) none of these

Q.13. Which Odd Number comes right after 65?
(a) 63   (b) 65
(c) 67   (d) none of these

Q.14. Dinesh skip-counted, beginning at 50, until he reached 68. Could he be counting by fives?
(a) yes   (b) no
(c) can't say   (d) none of these

Q.15. If you arrange these numbers from least to greatest, which number will come fifth?
78   77   34   83   74
(a) 78   (b) 77
(c) 34   (d) 83

Q.16. If you arrange these numbers from greatest to least, which number will come first?
91   99   90   61   95
(a) 91   (b) 99
(c) 90   (d) 61

Q.17. On arranging following number from least to greatest which number will come at fourth position.
35, 54, 61, 24, 42, 78, 97
(a) 61   (b) 54
(c) 42   (d) none of these

Q.18. Which number is largest?
(a) 245   (b) 214
(c) 425   (d) none of these

Q.19. Which sign comes in the blank?
190 __ 394
(a) >   (b) <
(c) =   (d) none of these

Q.20. What suits in $\diamondsuit$, 340 − 15 $\diamondsuit$ 240 + 200
(a) >   (b) <
(c) =   (d) none of these

Q.21. The greatest number formed by following digit is
3, 7, 7, 9, 2
(a) 77923   (b) 23779
(c) 97732   (d) none of these

Q.22. Which number is smallest?
(a) 154   (b) 511
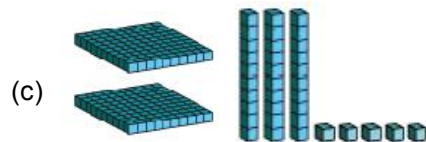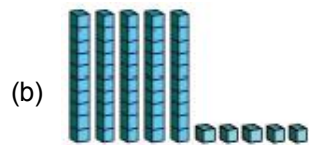(c) 359   (d) none of these
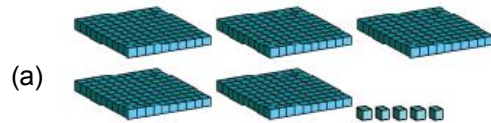
Q.23. What number is shown?
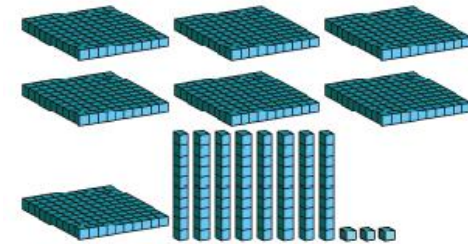
(a) 783   (b) 794
(c) 682   (d) none of these

Q.24. Which place-value model shows **848**?

(a)

(b)

(c)
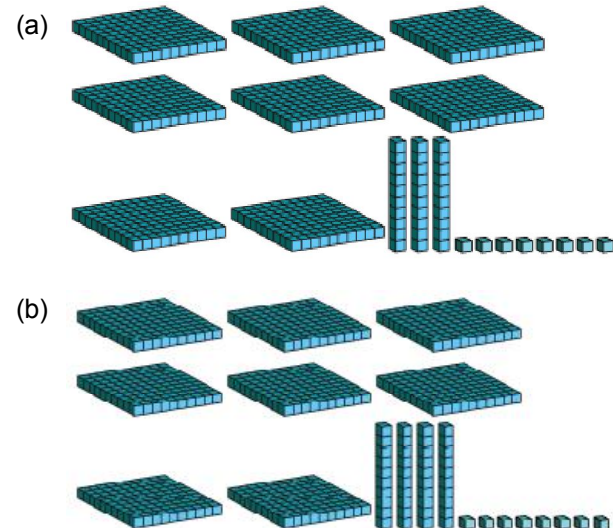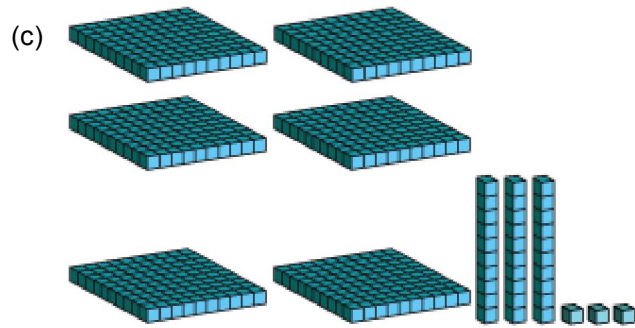
(d) none of these

Q.25. Which place-value model shows **505**?

(a)

(b)

(c)

(d) none of these

Q.26. The difference in greatest two digit number and smallest two digit number is.
   (a) 87   (b) 89
   (c) 98   (d) none of these

Q.27. In **1,354**, what number is in the **hundreds** place?
   (a) 1   (b) 3
   (c) 5   (d) 4

Q.28. In 8,745, one number 8 is at _____ place.
   (a) hundreds   (b) thousands
   (c) ten   (d) none of these

Q.29. In **50**, at which place is the **0**?
   (a) ones   (b) tens
   (c) hundreds   (d) none of these

Q.30. Which number's underlined digit is worth **4**?
   (a) 4̲7   (b) 94̲
   (c) both   (d) none of these

Q.31. Which number's underlined digit is worth **50**?
   (a) 5̲33   (b) 25̲8
   (c) 315̲   (d) none of these

Q.32. ⬜ hundreds = 20 tens
   (a) 9   (b) 1
   (c) 2   (d) none of these

Q.33. ⬜ tens = 90 ones
   (a) 1   (b) 9
   (c) 90   (d) none of these

Q.34. I have a one in the ones place. I am greater than 22 but less than 38.
What number am I?
   (a) 41   (b) 31
   (c) 21   (d) none of these

Q.35. What is the **least** whole number you can make using all of the following digits?
4,   7,   2,   9,
   (a) 7942   (b) 2479
   (c) 9742   (d) none of these

Q.36. I have an eight in the ones place. I am greater than 60 but less than 75.
What number am I?
   (a) 58   (b) 68
   (c) 78   (d) none of these

Q.37. What is the **highest** whole number you can make with the following digits?
3   0   4   6
   (a) 6403   (b) 6430
   (c) 6034   (d) none of these

Q.38. The number just before 4600 is
   (a) 3999   (b) 4599
   (c) 4601   (d) none of these

Q.39. The number just after 7808 is
   (a) 7807   (b) 7809
   (c) 7810   (d) none of these

Q.40. How many hundred's are there in 1802?
    (a) 8   (b) 800
    (c) 80   (d) none of these

Q.41. The number having "3" in the hundreds place, "5" in the ones place and "2" in the tens place is .....
    (a) 352   (b) 532
    (c) 253   (d) 325

Q.42. Which number has a 4 in the tens place and a 4 in the hundreds place?
    (a) 6424   (b) 6244
    (c) 4462   (d) 6442

Q.43. Which digit of this number is in the hundreds place?
    5,769
    (a) 5   (b) 6
    (c) 7   (d) 9

Q.44. Which is not true?
    (a) 6,473 > 6,374   (b) 6,473 < 6,437
    (c) 6,473 > 6,347   (d) 6,473 > 6,347

**Q.45.** Which of the following represent the number correctly?
    3742

(a)

TH　H　T　O

(b)

TH　H　T　O

(c)

TH　H　T　O
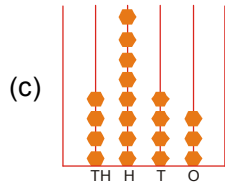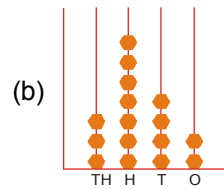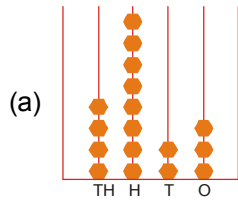
(d) none of these

☺☺☺

ANSWERS

1. (b)	2. (c)	3. (a)	4. (c)	5. (b)	6. (b)	7. (b)	8. (b)
9. (a)	10. (b)	11. (c)	12. (a)	13. (c)	14. (b)	15. (d)	16. (b)
17. (b)	18. (c)	19. (b)	20. (b)	21. (c)	22. (a)	23. (a)	24. (b)
25. (a)	26. (b)	27. (b)	28. (b)	29. (a)	30. (b)	31. (b)	32. (c)
33. (b)	34. (b)	35. (b)	36. (b)	37. (b)	38. (b)	39. (b)	40. (a)
41. (d)	42. (d)	43. (c)	44. (b)	45. (b)			

CHAPTER 2 Addition & Subtraction

Q.1. Which number makes this sentence true?

361 < (155 + ?)

(a) 204   (b) 208
(c) 100   (d) 150

Q.2. Which number makes this sentence true?

(146 + 600) < 969 − ?

(a) 222   (b) 223
(c) 224   (d) none of these

Q.3. What number when added to 111 results 202?

(a) 19   (b) 99
(c) 91   (d) none of these

Q.4. Which sign belongs in the blank?

(14 − 3) − 4 __ 7 + 3

(a) <   (b) =
(c) >   (d) none of these

Q.5. What numbers to be added to 1 digit greatest number to get 3 digit smallest number?

(a) 19   (b) 99
(c) 91   (d) none of these

Q.6. What number is to be substracted from 3 digit largest number to result 3 digit smallest number?

(a) 999   (b) 899
(c) 889   (d) none of these

Q.7. Which number sentence does the picture shows?
(Picture of 25 pencil crossed on 7 Pencil)

(a) 25 × 7
(b) 18 + 7
(c) 25 − 7
(d) none of these

Q.8. What is 400 + 60 + 2?

(a) 426   (b) 642
(c) 462   (d) none of these

Q.9. What is 3,000 + 600 + 30 + 9?

(a) 3,369   (b) 3,639
(c) 6,339   (d) 3,963
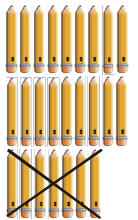
Q.10. 325 + 259 = ?
(a) 584   (b) 548
(c) 854   (d) none of these

Q.11. The rule to get out number is add 100. Which is wrong result?

In	Out
670	770
482	582
777	787
134	234

(a) 770
(b) 582
(c) 787
(d) 234

Q.12. There are 600 Mathemagic Activity Books and 180 Cyber Smart Activity Books in the library. How many books are there in total?
(a) 780   (b) 807
(c) 420   (d) none of these

Q.13. Raghuvir has 611 bowls of tomato soup and 367 bowls of chicken soup. How many bowls of soup are there in total?
(a) 789   (b) 978
(c) 879   (d) none of these

Q.14. Harish used a computer to count survey results. First, he counted 136 results from senior citizens. Later, he counted 335 more results from senior citizens. How many results from senior citizens did he count in total?
(a) 417   (b) 471
(c) 299   (d) none of these

Q.15. Which number makes the equation true?

☐ + 248 = 284 + 107

(a) 100   (b) 143
(c) 134   (d) none of these

Q.16. Add: 456 + 212 + 356 = ☐

(a) 1042   (b) 1024
(c) 1004   (d) none of these

Q.17. Which number makes the equation true?

480 + ☐ = 102 + 538

(a) 160   (b) 601
(c) 106   (d) none of these

Q.18. A paper factory made 5,035 sheets of white paper, 2,067 sheets of yellow paper, and 1,269 sheets of blue paper. How many sheets of paper did the paper factory make in total?
(a) 8731   (b) 8371
(c) 8173   (d) none of these

Q.19. A Computer company produced 3,246 pieces of keyboards, 1,860 pieces of C P U, and 3,312 pieces of Monitors. How many pieces of all did the company produce in total?
(a) 8418   (b) 8481
(c) 8841   (d) none of these

Q.20. Maya won a shopping spree at the mall. First, she spent Rs. 2,641 at the toy store. Then she spent Rs. 1,153 at a clothing store and Rs. 4,685 at the electronics store. How much money did Maya spend in total?
(a) Rs. 8497   (b) Rs. 8479
(c) Rs. 8794   (d) none of these

Q.21. Type the missing digits?

```
   3  ,  ☐    ☐         9
+  3  ,  6    1        ☐
───────────────────────────
   7  ,  1    7        4
```

(a) 4   (b) 5
(c) 3   (d) none of these

Q.22. A professional society has 1,088 members in Kolkata, 3,139 members in Mumbai, and 3,717 members in Chennai. How many members does the society have in all?
(a) 7494   (b) 7944
(c) 7449   (d) none of these

Q.23. Which number makes the equation true?

☐ + 7,243 = 7,284 + 786

(a) 830   (b) 827
(c) 840   (d) none of these

Q.24. Which number makes the equation true?

☐ + 4,233 = 344 + 5,128

(a) 1239   (b) 1932
(c) 1293   (d) none of these

Q.25. Subtract: 324 – 34 = [   ]
- (a) 280
- (b) 290
- (c) 209
- (d) none of these

Q.26. Karim and Naina had 477 sheets of paper, but they used 30 of them for a school project. How many sheets of paper do they have now?
- (a) 474
- (b) 447
- (c) 507
- (d) none of these

Q.27. Sayam and Sarita both worked as sales man at an electronics store. In all, they sold 899 DVD players. Sayam sold 52 DVD players. How many DVD players did Sarita sell?
- (a) 951
- (b) 847
- (c) 874
- (d) none of these

Q.28. Surjeet and Manoj bought 956 thank-you notes, but 42 fell in a puddle and got ruined. then again they bought 89 notes. Then how many thank-you notes do they have now?
- (a) 1030
- (b) 1003
- (c) 914
- (d) none of these

Q.29. Prakash and Mahendra both bought 864 spools of thread. If 16 spools of thread were bought by Prakash, how many spools of thread were bought by Mahendra?
- (a) 880
- (b) 848
- (c) 884
- (d) none of these

Q.30. Fill in the missing number?

[   ] – 564 = 254
- (a) 881
- (b) 818
- (c) 188
- (d) none of these

Q.31. Which number makes the equation true?
618 – **?** = 662 – 233
- (a) 192
- (b) 190
- (c) 189
- (d) 196

Q.32. Type the missing digits?

7	,	[ ]	5	3
– 4	,	7	8	9
3	,	0	6	4

- (a) 7
- (b) 8
- (c) 9
- (d) none of these

Q.33. A school recorded the number of Students admitted in the past 4 months.

Student Admission	
Month	Number of Students
March	5,129
April	2,241
May	1,563
June	241

How many students in total admitted in April and May?
- (a) 3084
- (b) 3804
- (c) 3840
- (d) none of these

Q.34. A car dealer recorded the number of cars sold each month.

Cars sold	
Month	Number of cars
March	196
April	449
May	323

How many cars did the dealer sell more in April than in May?
- (a) 235
- (b) 253
- (c) 126
- (d) none of these

Q.35. There are 3 red pens in Natasha's desk drawer. There are 5 more black pens than red pens. There are also 8 more blue pens than red pens. How many pens are there in desk drawer?
- (a) 18
- (b) 22
- (c) 16
- (d) none of these

☺☺☺

ANSWERS

1. (b) 2. (a) 3. (c) 4. (a) 5. (c) 6. (b) 7. (c) 8. (c)
9. (b) 10. (a) 11. (c) 12. (a) 13. (b) 14. (b) 15. (b) 16. (b)
17. (a) 18. (b) 19. (a) 20. (b) 21. (b) 22. (b) 23. (b) 24. (a)
25. (b) 26. (b) 27. (b) 28. (b) 29. (b) 30. (b) 31. (c) 32. (b)
33. (b) 34. (c) 35. (b)

☺☺☺

NATIONWIDE INTERACTIVE MATHS OLYMPIAD (NIMO) SAMPLE PAPER

Total duration : 40 Minutes   **Total Marks :** 25

SECTION - A
MENTAL ABILITY

1. Look at this pattern.

    What figure comes next in this pattern?

    (a)   (b)   (c)   (d) None of these

2. Kapil wants to balance this scale

    He knows one ◉ weighs the same as four ★. How many more ★ should Kapil put on the right side of the scale to balance it?

    (a) 2   (b) 4   (c) 8   (d) None of these

3. The given figure shows the front of a school.

    How many rectangles are there in the given figure?

    (a) 3   (b) 6   (c) 9   (d) None of these

4. Which of the following is the result of the given figure, when it is turned upside down?

    (a)   (b)   (c)   (d)None of these

5. Prerna made this figure using grid paper.
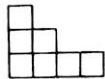
Without any gaps or overlaps, which figure fits together with Perna's figure to form a rectangle same to the rectangle below?

(a)   (b)

(c)   (d) None of these

SECTION - B
MATHEMATICS

6. Look at these shapes and their values.

Shape	Value
□	100
│	10
×	1

    Which of the following show the number one hundred forty-five

    (a) □□ ║║×××   (b)□ ║║║×××××

    (c) □║║║║××××   (d)None of these

7. This table shows the number of vans needed to take students on a camping trip.

Number of Vans	Number of Students
2	14
3	21
4	28
5	?
6	42

    Each van takes the same number of students. How many students can 5 vans take on the camping trip?

    (a) 30   (b) 32

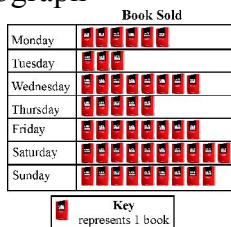   (c) 35   (d) None of these

8. Look at this circle ◯

    Which picture shows this circle divided into fourths?

    (a)   (b)

    (c)   (d) None of these

9. Look at this pictograph

Book Sold

Monday	🔴🔴🔴🔴🔴
Tuesday	🔴🔴🔴
Wednesday	🔴🔴🔴🔴🔴🔴🔴🔴
Thursday	🔴🔴🔴🔴
Friday	🔴🔴🔴🔴🔴🔴🔴
Saturday	🔴🔴🔴🔴🔴🔴🔴🔴🔴🔴
Sunday	🔴🔴🔴🔴🔴🔴🔴

Key
🔴 represents 1 book

On which days were the same number of books sold?

(a) Saturday and Sundy   (b) Tuesday and Saturday

(c) Wednesday and Friday (d) None of these

10. Look at this bookmark.

5 centimeters
10 centimeters
I LOVE MATHEMATICS!
10 centimeters
10 centimeters
5 centimeters

What is the distance around this bookmark?

(a) 26 centimerters   (b) 13 centimeters

(c) 16 centimeters   (d) None of these

11. A movie is 115 minutes long. Which statement about this movie is true?

(a) The movie is less than 2 hours long

(b) The movie is exactly 2 hours long

(c) The movie is more than 2 hours long.

(d) None of these

12. The given clock shows the time Harsh left home. He arrived at the airport 52 minutes later.

What is the time when he arrived at the airport?

(a)   (b)

(c)   (d) None of these

13. Which row is correctly matched?

Row	Object	Odd / Even
(a)	🎒🎒 🎒🎒 🎒🎒 🎒🎒 🎒🎒 🎒🎒 🎒🎒	Odd
(b)	🚐 🚐	Odd
(c)	🐝 🐝 🐝	Even
(d)	🛡️ 🛡️ 🛡️ 🛡️ 🛡️	Even

14. There are five rows in the parking lot. If there are spots for eight cars in each row. How many cars can park in the parking lot?

(a) 13   (b) 40   (c) 32   (d) None of these

15. The given Tissue box is what 3-dimensional figure?

(a) Sphere   (b) Cuboid

(c) Cube   (d) None of these

16. Which object has a mass of about 1 gram?

(a)   (b) 12 Crayons   (c)   (d)None of these

17. Which pair of figures has the same fractional area shaded gray?

(a)   (b)

(c)   (d) None of these

18. Look at the student's work on the blackboard. Which two students have the same number?

(a) Avinash and Babbal (b) Avinash and Chetan

(c) Babbal and Chetan (d) Babbal and Dinesh

19. Neelam bought following items from the shop

(a) Chocolate   - Rs. 20/-
(b) Butter   - Rs. 30/-
(c) Bread   - Rs. 16/-
(d) Pen   - Rs. 10/-

Shopkeeper billed amount Rs. 60/-. One thing he has forgotten to bill. Which is that?

(a) Chocolate   (b) Bread
(c) Pen   (d) None of these

20. Aarti had Rs. 200/- She went to the shopping centre and bought following items.

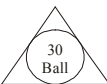Rs. 75/-   Rs. 25/-   Rs.55/-   Rs.35/-   Rs. 10/-

How much amount is left with her

(a) Rs. 10/-   (b) Rs. 25/-
(c) 0   (d) None of these

21. Which of the following shows triangular solid.

(a) (b) (c) (d) None of these

22. Priya and Pooja each correctly used a different number sentence to solve the same problem. Priya used this number sentence
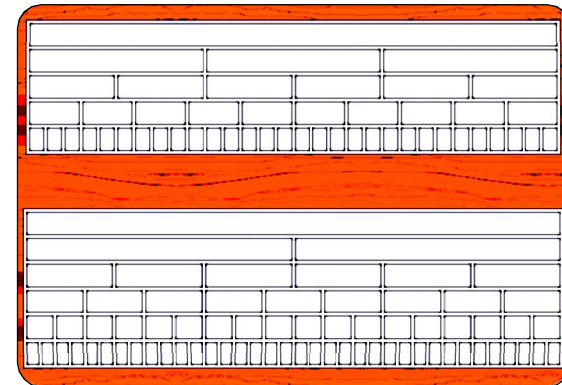
$$13 \times 4 = 52$$

Which of the following could pooja chance used

(a) 52 − 13 = 39   (b) 52 ÷ 4 = 13
(c) 13 ÷ 52 = 4   (d) None of these

SECTION - C
INTERACTIVE SECTION

Below given are two fraction walls. Fill the fractions in the two walls and answer the question that follows:

Fraction wall-1

Fraction wall-2

23. How many 1/10 fractions you found in **wall 1**?

(a) 6   (b) 10
(c) 30   (d) None of these

24. Which fraction is not there in wall 2?

(a) 1/18   (b) 1/6
(c) 1/3   (d) None of these

25. How many 1/6 fraction are present in **wall 1** and **wall 2**?

(a) 5   (b) 7
(c) 12   (d) None of these

☺ **END OF THE EXAM** ☺

ANSWERS

1. (a)	**2.** (c)	**3.** (d)	**4.** (c)	**5.** (c)
6. (b)	**7.** (c)	**8.** (b)	**9.** (c)	**10.** (a)
11. (a)	**12.** (a)	**13.** (a)	**14.** (b)	**15.** (b)
16. (d)	**17.** (b)	**18.** (d)	**19.** (b)	**20.** (c)
21. (c)	**22.** (b)	**23.** (b)	**24.** (c)	**25.** (c)

☺☺☺