

Mental Maths Competition[®]

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Global Maths Science Education[®]

In Association with

Math Vision Pte Ltd., Singapore.

MOCK TEST

Std. 5

Instructions for the Competition

Total Marks : 200

Total No of questions: 75

1. Time : 1½hr
2. Students can use HB Pencil for marking answers in OMR sheet.
3. Questions are arranged according to 3 difficulty level to provide pupils with optimum exposure to Mental Maths.
4. [Section 1] In this section, there are 40 questions help to build calculation skills. Each question carries 2 marks.
5. [Section 2] It is related with 20 questions test fundamental concept covered in topic listed below. Each question carries 3 marks.
6. [Section 3] Here questions are challenging & required high order thinking skills. Each question carry 4 marks. Students are requested to practice extra question given alongwith the Mock paper. Any 15 questions can be asked from given question format in mock paper & extra practice questions.

Tel : 2594 82 07

E-mail : mmcgmse@gmail.com

SECTION 1 (Mental Maths Calculation)

1. $51612 + 91341 = \underline{\hspace{2cm}}$

- (a) 122853 (b) 132953
(c) 142953 (d) 152853

2. $91243 - 9824 = \underline{\hspace{2cm}}$

- (a) 81419 (b) 71319
(c) 61428 (d) 82319

3. $85123 + 948 = \underline{\hspace{2cm}}$

- (a) 84071 (b) 86071
(c) 76051 (d) 85071

4. $24863 - 3126 = \underline{\hspace{2cm}}$

- (a) 21747 (b) 31437
(c) 11747 (d) 21737

5. $9132 + 4136 - 400 = \underline{\hspace{2cm}}$

- (a) 13868 (b) 13568
(c) 12868 (d) 12888

6. $2248 + 2000 - 600 = \underline{\hspace{2cm}}$

- (a) 2618 (b) 3648
(c) 3638 (d) 5648

7. $2461 - (300 + 800) = \underline{\hspace{2cm}}$

- (a) 1261 (b) 3561
(c) 1361 (d) 3661

8. $(100 - 36) + (100 - 25) = \underline{\hspace{2cm}}$

- (a) 159 (b) 139
(c) 169 (d) 149

9. $(100 - 72) + (100 + 22) = \underline{\hspace{2cm}}$

- (a) 250 (b) 150
(c) 350 (d) 450

10.
$$\begin{array}{r} 2243 \\ + 1319 \\ + 1243 \\ + 1251 \\ + 3123 \\ \hline \end{array}$$

- (a) 9173 (b) 8174
(c) 9274 (d) 9179

11.
$$\begin{array}{r} 4123 \\ + 1359 \\ + 1628 \\ + 1358 \\ + 3123 \\ \hline \end{array}$$

- (a) 11591 (b) 12581
(c) 11661 (d) 11582

12. $(9 + 8 + 3 + 4 + 8 + 3) + \square = 40$

- (a) 8 (b) 5
(c) 7 (d) 10

13. $(8 + 3 + 2 + 3 + 2) + \square = 25$

- (a) 10 (b) 6
(c) 12 (d) 7

14. $27 \times 24 =$ _____
(a) 648 (b) 442
(c) 637 (d) 658
15. $95 \times 97 =$ _____
(a) 9426 (b) 9285
(c) 9215 (d) 9556
16. $4134 \times 40 =$ _____
(a) 165360 (b) 155340
(c) 485260 (d) 154340
17. $3503 \times 50 =$ _____
(a) 144250 (b) 164250
(c) 132350 (d) 175150
18. $8254 \times 60 =$ _____
(a) 483260 (b) 495240
(c) 411250 (d) 412560
19. $450 \div 50 =$ _____
(a) 1 (b) 4
(c) 9 (d) 5
20. $600 \div 25 =$ _____
(a) 23 (b) 24
(c) 22 (d) 21
21. $1940 \div 4 =$ _____
(a) 485 (b) 235
(c) 158 (d) 135
22. $2727 \div 9 =$ _____
(a) 303 (b) 403
(c) 503 (d) 301
23. If 1936 is divided by 3,
leaves remainder as _____
(a) 4 (b) 1
(c) 3 (d) 8
24. If 4338 is divided by 5,
leaves remainder _____
(a) 4 (b) 3
(c) 6 (d) 6
25. double of 593 is _____
(a) 1186 (b) 1886
(c) 2186 (d) 1086
26. half of 672 is _____
(a) 436 (b) 336
(c) 136 (d) 116
27. Square of 23 is _____
(a) 429 (b) 529
(c) 328 (d) 528
28. Square of 29 is _____
(a) 741 (b) 461
(c) 841 (d) 361
29. $9 \times 30 + \square = 400$
(a) 140 (b) 130
(c) 120 (d) none of this

30. $7 \times 60 - \square = 380$

- (a) 20 (b) 30
(c) 40 (d) 50

31. 7 times of 9 – square of 7 =

- (a) 13 (b) 15
(c) 12 (d) 14

32. 4 times of 8 – square of 4 =

- (a) 8 (b) 16
(c) 24 (d) 0

33. 3 times of 9 – square of 2 =

- (a) 31 (b) 27
(c) 24 (d) 23

34. 5 times of 8 – square of 1 =

- (a) 38 (b) 42
(c) 39 (d) 41

35. $(96 \times 100) - (37 \times 10) =$

- (a) 9230 (b) 9970
(c) 8230 (d) 9320

36. $(56 \times 100) - (35 \times 100) =$

- (a) 2200 (b) 2100
(c) 220 (d) 210

37. $(25 \times 100) - (12 \times 10) =$

- (a) 130 (b) 1300
(c) 2390 (d) 2380

38. $(95 \times 10) + (12 \times 100) =$

- (a) 2150 (b) 10500
(c) 1250 (d) 10800

39. Twelve times of 6 reduced by
2 times of 8 we get _____

- (a) 56 (b) 66
(c) 76 (d) 86

40. Five times of 8 increased by
4 times of 5 we get _____

- (a) 100 (b) 20
(c) 50 (d) 60

SECTION 2 (Mental Maths Concepts)

41. A 4 digit even number is more than 3500 but less than 4000. Find the sum of the smallest and greatest possible number.

(a) 7500 (b) 7504
(c) 7998 (d) 7990

42. W is 30 tens more than V. V is 10 hundred less than 7230, find the value of W.

(a) 6530 (b) 6930
(c) 7930 (d) 8530

43. Find smallest fraction among

(i) $\left(\frac{1}{4} + \frac{5}{4}\right)$ (ii) $\left(\frac{11}{4} - \frac{3}{4}\right)$

(iii) $\left(\frac{9}{4} + \frac{1}{4}\right)$ (iv) $\left(\frac{7}{2} - \frac{2}{4}\right)$

(a) i (b) ii
(c) iii (d) iv

44. $5 \overline{)5050}$

(a) 1010 (b) 101
(c) 101 (d) 1001

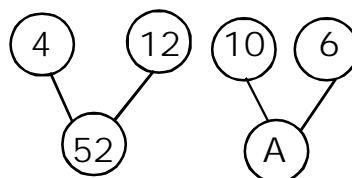
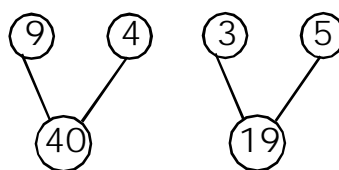
45. $50 - (\square \times 5) = 0$

(a) 5 (b) 10
(c) 50 (d) 0

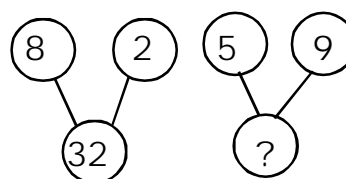
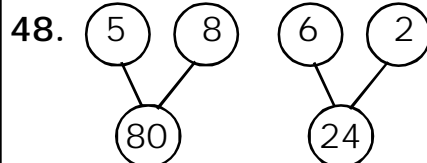
46. A machine produces 90 pieces of good is 1 hour? How many pieces it will produce is 20 mins?

(a) 15 (b) 30
(c) 10 (d) 20

47. Observe the number bond and find the value of A.



(a) 56 (b) 64
(c) 42 (d) 65



(a) 90 (b) 80
(c) 60 (d) 28

49. $P + Q = 6$

$P - Q = 2$

Then $P = ?$

(a) 2 (b) 5
(c) 8 (d) 4

50. The sum of prime numbers between $\boxed{35}$ and $\boxed{45}$ is _____

- (a) 84 (b) 160
(c) 80 (d) 121

51. There are _____ prime number between 23 and 40.

- (a) 2 (b) 3
(c) 4 (d) 5

52. The sum of all divisor of 24 is _____

- (a) 58 (b) 59
(c) 52 (d) 60

53. L.C.M. of 12 and 9 is _____

- (a) 12 (b) 9
(c) 36 (d) 108

54. H.C.F. of 15 and 12 is _____

- (a) 3 (b) 5
(c) 12 (d) 15

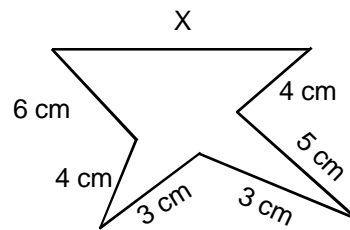
55. The sum of 9th odd number and 15th even number is _____

- (a) 48 (b) 47
(c) 49 (d) 50

56. If 15th Feb 2002 is Monday then the day on 24th March 2002 is _____

- (a) Wednesday (b) Tuesday
(c) Sunday (d) Thursday

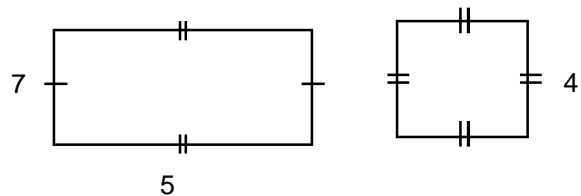
57.



If perimeter of given figure is 33 cm find value of x.

- (a) 7 (b) 8
(c) 9 (d) 10

58.



The difference between area of rectangle & square is _____ sq unit.

- (a) 29 (b) 30
(c) 28 (d) 19

59. Subtract 49 tens from 57 hundreds. The place value of the digits 2 in the result is _____

- (a) 2 units (b) 2 tens
(c) 2 hundreds (d) 2 thousand

60. The product of 2 and 4 gives the same results as _____ divided by 3.

- (a) $3 + 18$ (b) $7 + 15$
(c) $11 + 12$ (d) $18 + 6$

SECTION 3 (Mental Maths Challenge)

61. Study the number pattern in diagram.

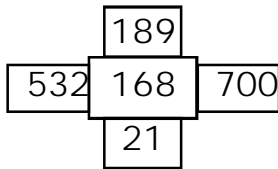


Diagram 1

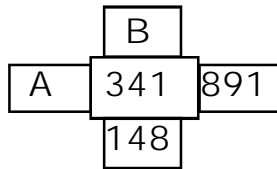
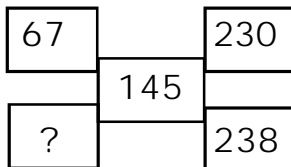


Diagram 2

The difference between value of A and B is _____

- (a) 1039 (b) 544 (c) 61 (d) 101
62. The total age of Anil and Manali is 37 years. Manali is 9 years younger than Anil. How old was Anil five years ago?
- (a) 20 yrs (b) 16 yrs (c) 18 yrs (d) 15 yrs
63. The sum of two facing pages of a book where John stopped reading is 13. If there are 200 pages in the book, how many pages does John need to read in order to finish reading the book.
- (a) 186 (b) 190 (c) 187 (d) 193

- 64.



If the sum of the numbers in each diagonal is equal. Find the missing number in box?

- (a) 75 (b) 65 (c) 85 (d) 55
65. $453 - \blacklozenge = 321 + \blacklozenge$
What can \blacklozenge be?
- (a) 66 (b) 132 (c) 152 (d) 387

66. $21 \square 5 \square 3 \square 2 = 10$

Put proper sign out of (+ , - , × , ÷) to get required answer.

(a) + - ×

(b) - + ×

(c) × ÷ +

(d) - - ×

67. _____ less than 81 tens 42 ones is 632

(a) 18 tens 40 ones

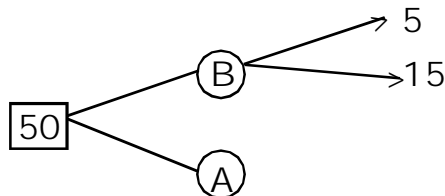
(b) 20 tens 20 ones

(c) 50 tens 9 ones

(d) 69 tens 65 ones

68.

Complete the number Bonds, find the difference between A and B.



(a) 50

(b) 20

(c) 10

(d) 15

69. $X + Y = 13$

$X + X + Y = 23$

The value of y is _____

(a) 14

(b) 3

(c) 9

(d) 10

70. Sonika separated 36 index cards by colours into four groups as follows:-

❖ 6 of them were blue

❖ $\frac{1}{3}$ of index cards are yellow.

❖ 25% of the index cards were green.

❖ $\frac{1}{4}$ of the index cards were pink.

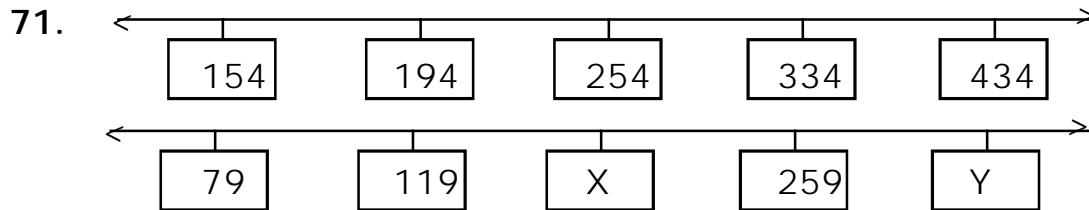
Which colour group contained the greatest number of cards.

(a) Blue

(b) Green

(c) Yellow

(d) Pink



The sum of X and Y is _____

- (a) 528 (b) 538 (c) 527 (d) 539

72. There are 568 apples and oranges in a box. There are 40 more apples than oranges. 15 oranges are rotten. How many more apples than fresh oranges are there in the box.

- (a) 50 (b) 52 (c) 55 (d) 24

73. Amita has 112 pink ribbons and some white and blue ribbon. There are 23 fewer pink ribbons than white ribbons and 89 more blue ribbons than pink ribbons. How many ribbons does Amita have altogether?

- (a) 448 (b) 438 (c) 428 (d) 468

74. The height of the taller tree is thrice the height of shorter tree. The height of shorter tree is 2 m. Find the sum of height of both the trees?

- (a) 6m (b) 8 m (c) 7 m (d) 9 m

75. List all possible numbers that are between 20 and 60 and have sum of 9 when all the digits are added, the sum of all these numbers is _____

- (a) 162 (b) 163 (c) 161 (d) 166

(Extra practise question)

1. If $x + y^2 = 250$, if $y = 15$ find $x = ?$
 (a) 23 (b) 24 (c) 25 (d) 26

2. If $\frac{1}{3}$ part of a certain amount was given to Neha and the rest to Juhi. If Juhi got ₹ 250, how much did Neha got.
 (a) ₹ 375 (b) ₹ 150 (c) ₹ 125 (d) ₹ 175

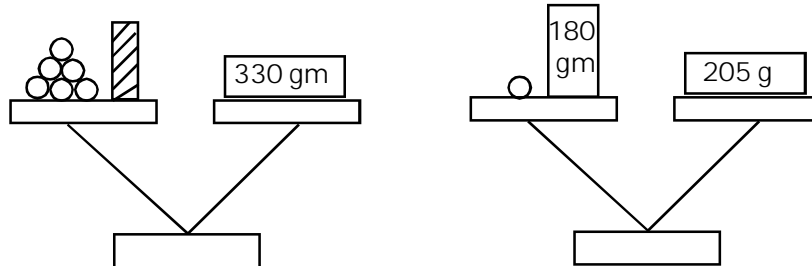
3. In the following Sum of addition, the letters A, B, C and D stands for certain digits. Two of the letters of the sum stands for a same digit. Which are they

	2	A	8	4
+	3	6	B	7
+	1	2	3	C
	D	9	9	0

 (a) B & D (b) B & C (c) A & C (d) A and D

4. $17 \times 7 - 6 \times 17 + 18 \times 12 - 3 \times 17 = ?$
 (a) 340 (b) 170 (c) 182 (d) 136

5. Study the diagram.



The mass of is _____ grams.

- (a) 200 (b) 190 (c) 180 (d) 170

6. If N is the greatest 2 digit prime number then $(N - 2) \times 2$ gives _____
(a) 190 (b) 180 (c) 170 (d) 160
7. Harshit chose a certain number, then he subtracted 20 from it then he added 50 to that difference. His final result was 209. What number did Harshit choose at the beginning.
(a) 279 (b) 169 (c) 179 (d) 268
8. A farmer built a fence around his square plot. He used 27 fence pots on each side of a square. How many pots did he need altogether?
(a) 100 (b) 104 (c) 106 (d) 108
9. A boy is 2 yrs 5 months old. His sister Anu is 2 years 10 months elder to him. How old is Anu.
(a) 4 yrs 10 months (b) 5 years 3 months
(c) 5 yrs 5 months (d) 5 years 10 months
10. Look at this schedule of interview times. If the pattern continues, what is the time of 5th interview.

Interview	Time
1st	1:00
2nd	1:40
3rd	2:20
4th	3:00

- (a) 3: 20 (b) 3:40 (c) 3:50 (d) 3:30

11. A store has sale on cans of tennis balls. For every 2 cans bought you get 1 can free. When you came home you had 18 balls in your shopping bag. If each can has 3 balls. How many tennis balls did you get free?
(a) 9 (b) 8 (c) 7 (d) 6
12. Mimi took part in an exercise programme. She run for 420 seconds , walked for half an hour and swam for 45 minutes. For how many minutes she has finished an exercise programme?
(a) 71 (b) 75 (c) 82 (d) 81
13. Brian ate 4 slice of large size pizza and his father ate 6 slice of it. If his brother ate $\frac{1}{2}$ of the pizza remaining and there were still 2 slices left. How many slices of pizza were there as first?
(a) 12 (b) 14 (c) 16 (d) 24
14. A stapler and a book cost ` 95. Sandy bought 3 book for ` 51. How much did the stapler cost?
(a) ` 51 (b) ` 78 (c) ` 68 (d) ` 88
15. Rakesh made three times paper boats as Nagesh. Nagesh made twice as many paper boats as Yogesh. If Nagesh made 28 paper boats. How many paper boats did the three children make altogether?
(a) 126 (b) 136 (c) 116 (d) 98

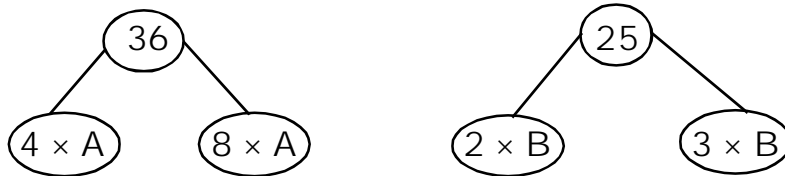
16. Johny is 12 years old. His cousin Sam is 16 years older than him. Find their total age in 10 years time.

(a) 50 yrs (b) 60 yrs (c) 40 yrs (d) 38 yrs

17. Which of the following comparsion is not correct?

(a) $21 = \text{XXI}$ (b) $\text{XL} > \text{XXXIX}$
 (c) $\text{CCXXI} < \text{CCIX}$ (d) $\text{CCXXI} > \text{CCIX}$

- 18.



then $A + B = ?$

(a) 5 (b) 6 (c) 7 (d) 8

19. M and $\frac{3}{12}$ makes 1 whole when M is subtracted from $\frac{11}{12}$, N is obtained what is the sum of M and N?

(a) $\frac{10}{12}$ (b) $\frac{11}{12}$ (c) $\frac{3}{12}$ (d) $\frac{4}{12}$

- 20.

$$\begin{array}{rcl} \Delta & + 12 & = 21 \\ \square & + \Delta & = 16 \\ \Delta & - \square & = ? \end{array}$$

(a) 2 (b) 3 (c) 5 (d) 9

21. What will be 6th term of sequence below.
80, 40, 20, 10, 5,
- (a) 1 (b) 5 (c) $1\frac{1}{4}$ (d) $2\frac{1}{2}$
22. Nalini ate 28 french fries at lunch. Monty ate half as many french fries as Nalini. Arpit ate 3 more french fries than Monty. Which number sentence given below will find the number of french fries Arpit ate?
- (a) $(28 - 3) \div 2$ (b) $(28 + 3) \div 2$ (c) $(28 \div 2) - 3$ (d) $(28 \div 2) + 3$
23. It takes 55 minutes of fly from town A to town B. It takes 12 times as much time to drive the same distance. How much time is needed to drive from town A to town B?
- (a) 11 hrs (b) 6 hrs 6 min (c) $6\frac{1}{2}$ hour (d) 9 hrs
24. If $L = 3$, $M = L + 2$, $N = L - 3$ Use DMAS
Then $L + M \times N = ?$
- (a) 5 (b) 3 (c) 0 (d) 1
25. If $\square + \square + \square + \square = 120$
and $\square \div \Delta = 6$
find $\Delta + \square = ?$
- (a) 25 (b) 35 (c) 30 (d) None of this

For more practise papers log on www.mathsshow.com

For any query related to question paper format, Kindly send email to us at mmcgmse@gmail.com . We will be replying with in 24 hours.

Answer Sheet

1	c		26	b		51	b
2	a		27	b		52	d
3	b		28	c		53	c
4	d		29	b		54	a
5	c		30	c		55	b
6	b		31	d		56	a
7	c		32	b		57	b
8	b		33	d		58	d
9	b		34	c		59	c
10	d		35	a		60	d
11	a		36	b		61	c
12	b		37	d		62	c
13	d		38	a		63	c
14	a		39	a		64	a
15	c		40	d		65	a
16	a		41	a		66	b
17	d		42	a		67	b
18	b		43	a		68	c
19	c		44	a		69	b
20	b		45	b		70	c
21	a		46	b		71	b
22	a		47	b		72	c
23	b		48	a		73	a
24	b		49	d		74	b
25	a		50	d		75	a

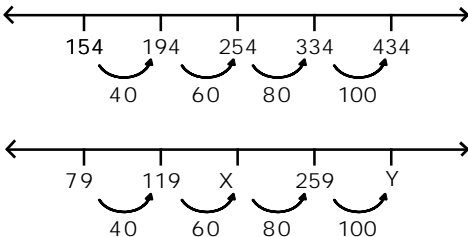
Answers for extra practice questions

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

Section 3 (Solution)

- 61) In diagram 1,
 $532 + 168 = 700$ and
 $21 + 168 = 189$
Hence in diagram 2,
 $A + 341 = 891$
 $\therefore A = 891 - 341$
 $= 550$
 $148 + 341 = B$
 $\therefore B = 459$
Difference between A & B
 $= 550 - 459$
 $= 91$
- 62) Anil = Manali + 9
Anil + Manali = 37
↓
 $\boxed{\text{Manali} + 9} + \text{Manali} = 37$
twice the age of Manali $= 37 - 9$
 $= 28$
 \therefore Age of Manali $= 14$ years
 \therefore Age of Anil $= 14 + 9$
 $= 23$ years.
5 yrs. ago Anil's age $= 23 - 5$
 $= 18$
- 63) Page numbers are consecutive
 $6 + 7 = 13$
Hence John stopped at page no. 7
 \therefore Remaining pages $= 200 - 7$
 $= 193$
- 64) 145 is common for both diagonals
Hence $67 + 238 = ? + 230$
Hence ? $= 67 + 238 - 230$
 $= 75$
- 65) $453 - \diamond = 321 + \diamond$
 $\therefore 453 - 321 = \diamond + \diamond$
 $132 = \diamond + \diamond$
 $\diamond = \frac{132}{2}$
 $= 66$
- 66) $21 - 5 - 3 \times 2$
As per BODMAS
 $= 21 - 5 - 6$
 $= 16 - 6$
 $= 10$
Hence option (d) – X is the correct answer.
- 67) 81 tens 42 ones
 $= 81 \times 10 + 42 \times 1$
 $= 810 + 42$
 $= 852$
 $852 - 632 = 220$
 $220 = 20 \text{ tens} + 20 \text{ ones}$
- 68) $B = 5 + 15 = 20$
 $A + 20 = 50$
 $A = 50 - 20$
 $A = 30$

Difference between A and B
 $= 30 - 20$
 $= 10$

- 69) $X + Y = 13$
 $X + \boxed{X + Y} = 23$
↓
 $X + 13 = 23$
 $X = 23 - 13$
 $X = 10$
 $\therefore 10 + Y = 13$
 $Y = 13 - 10$
 $Y = 3$
- 70) Blue = 6
Yellow $= \frac{1}{3} \times 36 = 12$
Green $= \frac{25}{100} \times 36 = 9$
Pink $= \frac{1}{4} \times 36 = 9$
Greatest no. of cards = Yellow.
- 71) 
- $X = 119 + 60 = 179$
 $Y = 259 + 100 = 359$
 $X + Y = 179 + 359$
 $= 538$
- 72) Oranges = 36
Apples $= (2 \times 36) + 10$
 $= 72 + 10$
 $= 82$
Total no. of fruits $= 36 + 82$
 $= 118$
- 73) Pink $\rightarrow 112$
White $\rightarrow 112 + 23 = 135$
Blue $\rightarrow 112 + 89 = 201$
Total no. of ribbons $= 112 + 135 + 201$
 $= 448$
- 74) Shorter tree $\rightarrow 2\text{m}$
taller tree $\rightarrow 3 \times 2 = 6\text{m}$
Sum of heights $= 2 + 6 = 8\text{m}$
- 75) Possible numbers between 20 and 60 having sum of digits as 9 are
27, 36, 45, 54
Their sum $= 27 + 36 + 45 + 54$
 $= 162$

Extra Practice Questions (Solution)

- 1) $x + y^2 = 250$
 $y = 15$
 $y^2 = 15^2 = 225$
 $x + 225 = 250$
 $x = 250 - 225$
 $x = 25$

- 2) $\frac{1}{3}$ part was given to Neha
Hence Neha got 1 part out of 3.
Hence, Juhi got 2 parts out of 3
But Juhi got ₹ 250
 \therefore 2 parts = 250
 \therefore 1 part = $250 \div 2 = 125$
 \therefore Neha got ₹ = 125


- 3)

2	A	8	4
+	3	6	B
+	1	2	3
D 9 9 0			

2	0	8	4
+	3	6	6
+	1	2	3
6 9 9 0			

$A = 0, B = 6, C = 9, D = 6$
 $B \& D = 6$

- 4) $17 \times 7 - 6 \times 17 + 18 \times 12 - 3 \times 17$
 $= 119 - 102 + 216 - 51$
 $= 182$

- 5) According to 2nd diagram
 = $205 - 180 = 25$
According to 1st diagram
 $6 \times 25 + \square = 330$
 $150 + \square = 330$
 $\square = 330 - 150$
 $= 180$

- 6) N is the greatest 2 digit prime number
 $\therefore N = 97$
 $(N - 2) \times 2 = (97 - 2) \times 2$
 $= 95 \times 2$
 $= 190$

- 7) Number $\xrightarrow{-20}$ $\xrightarrow{+50}$ 209
Now work backwards,
 $209 - 50 = 159$
 $159 + 20 = 179$
 \therefore Number in beginning = 179

- 8) If we exclude 4 corner pots then, there are 25 pots in side of the square.
Hence total no. of pots
 $= (25 \times 4) + 4$
 $= 100 + 4$
 $= 104$

- 9) Boy \rightarrow 2 yrs. 5 months
Anu \rightarrow 2 yrs. 5 months
 $\quad + 2$ yrs. 10 months
 \hline
4 yrs. 15 months
 $=$ 5 yrs. 3 months.

- 10) There is a difference of 40 minutes between two successive interviews.
Hence 5th interviews will be at 3 : 40

- 11) 18 balls = $18 \div 3$
= 6 cans.
6 cans = 2 cans + 1 free can
 $\quad + 2$ cans + 1 free can
Hence total free cans = 2
 \therefore No. of free balls = $2 \times 3 = 6$

- 12) Run \rightarrow 420 seconds
= $420 \div 60$
= 7 minutes
Walk \rightarrow half an hour
= $\frac{1}{2} \times 60$
= 30 minutes
Swim \rightarrow 45 minutes
Total time = $7 + 30 + 45$
= 82 minutes

- 13) Brian's brother ate half pizza
Hence remaining half pizza
= 4 slices (Brian) + 6 slices (father)
 $\quad + 2$ slices (remaining)
= 12 slices
Total no. of slices = 12×2
= 24

- 14) 3 books = ₹ 51
1 book = $51 \div 3$
= 17
stapler + book = ₹ 95
stapler = $95 - 17$
= 78

- 15) Nagesh \rightarrow 28
Rakesh \rightarrow $3 \times 28 = 84$
Yogesh \rightarrow $28 \div 2 = 14$
Total paper boats = $28 + 84 + 14$
= 126

- 16) Present age of Johny = 12
Present age of Sam = $12 + 16$
= 28
After 10 yrs,
Johny's age = $12 + 10 = 22$
Sam's age = $28 + 10 = 38$
Total age after 10 yrs = $22 + 38$
= 60

- 17) CCXXI = 221
CCIX = 209
Hence CCXXI < CCIX is incorrect.

$$\begin{aligned}
 18) \quad & \text{For 1st figure} \\
 & 4 + 8 = 12 \text{ and } 12 \times 3 = 36 \\
 & \therefore A = 3 \\
 & \text{for 2nd figure} \\
 & 2 + 3 = 5 \text{ and } 5 \times 5 = 25 \\
 & \therefore B = 5 \\
 & A + B = 3 + 5 = 8.
 \end{aligned}$$

$$\begin{aligned}
 19) \quad & M + \frac{3}{12} = 1 \\
 & \therefore M = 1 - \frac{3}{12} \\
 & = \frac{12}{12} - \frac{3}{12} \\
 & = \frac{9}{12} \\
 & N = \frac{11}{12} - M \\
 & = \frac{11}{12} - \frac{9}{12} \\
 & = \frac{2}{12} \\
 & M + N = \frac{9}{12} + \frac{2}{12} = \frac{11}{12}
 \end{aligned}$$

$$\begin{aligned}
 20) \quad & \triangle + 12 = 21 \\
 & \triangle = 21 - 12 = 9 \\
 & \square + \triangle = 16 \\
 & \square + 9 = 16 \\
 & \square = 16 - 9 = 7 \\
 & \triangle - \square = 9 - 7 = 2
 \end{aligned}$$

$$\begin{aligned}
 21) \quad & 80 \div 2 = 40 \text{ (2nd)} \\
 & 40 \div 2 = 20 \text{ (3rd)} \\
 & 20 \div 2 = 10 \text{ (4th)} \\
 & 10 \div 2 = 5 \text{ (5th)} \\
 & 5 \div 2 = \frac{5}{2} = 2\frac{1}{2} \text{ (6th)}
 \end{aligned}$$

$$\begin{aligned}
 22) \quad & \text{Nalini} \rightarrow 28 \\
 & \text{Monty} \rightarrow (28 \div 2) \\
 & \text{Arpit} \rightarrow (28 \div 2) + 3
 \end{aligned}$$

$$\begin{aligned}
 23) \quad & \text{A to B flying} \rightarrow 55 \text{ min} \\
 & \text{A to B Driving} \rightarrow 55 \times 12 \\
 & = 660 \text{ min} \\
 & = (660 \div 60) \\
 & = 11 \text{ hours.}
 \end{aligned}$$

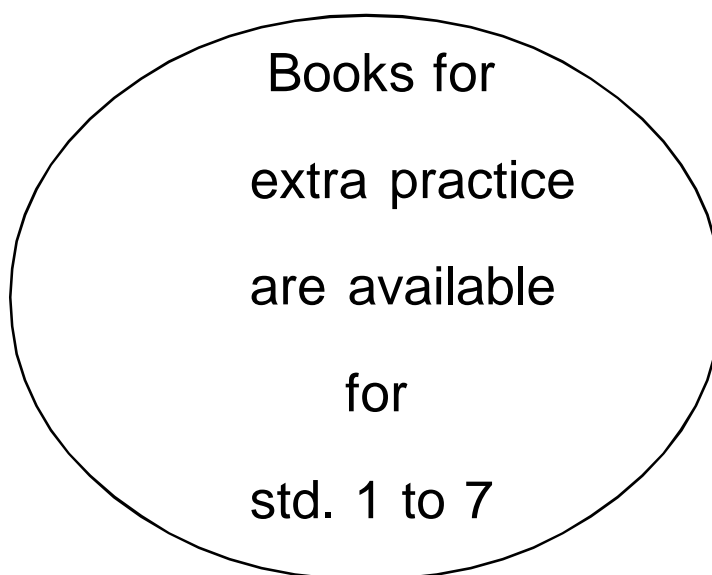
$$\begin{aligned}
 24) \quad & L = 3 \\
 & M = L + 2 = 3 + 2 = 5 \\
 & N = L - 3 = 3 - 3 = 0 \\
 & L + M \times N = 3 + 5 \times 0 \\
 & = 3 + 0 \\
 & = 3
 \end{aligned}$$

$$\begin{aligned}
 25) \quad & \square + \square + \square + \square = 120 \\
 & \square = 120 \div 4 \\
 & = 30 \\
 & \square \div \triangle = 6 \\
 & 30 \div \triangle = 6 \\
 & \triangle = 5 \\
 & \triangle + \square = 5 + 30 \\
 & = 35 \\
 & ***
 \end{aligned}$$

Mental Maths Competition®

Topics Included.

- (1) Q. No. 1 to 40 are based on basic. Calculation questions related to (+, −, ×, ÷), doubling, halving and square of a number from 2 to 30.
- (2) Student should know multiplication tables from 2 to 25.
- (3) 3 digit, 4 digit Nos. operation. [+ , − , × , ÷]
- (4) Number bonds, prime numbers from 1 to 100, unitary methods.
- (5) Mixed operations (÷ , ×, + , −)
- (6) Calculating H.C.F & L.C. M
- (7) Number series (WHAT COMES NEXT)
- (8) Roman Numbers (FROM 1 to 1000) , divisibility property of 2, 3, 4, 6, 9, 10.
- (9) Fractions :- Addition, subtraction, multiplication, divisions, comparision.
- (10) Conversion from hrs to mins, years to months, weeks to days.
- (11) Perimeter and area of square, rectangle & given close figure.
- (12) Word problems related to addition, subtraction, multiplication, division.



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