



SALWAN PUBLIC SCHOOL
Sector-15 (II), Gurgaon

Holiday Home Work
(2018-19)

SERVICE BEFORE SELF

CLASS – VI

MENTAL MATHS WORKSHEET

Worksheet - 1

Topic: Number Series

Q. Choose the correct alternative to complete the series:

1. 7, 9, 13, 21, ____?

(A) 30 (B) 32 (C) 35 (D) 37

2. 34, 32, 37, 35, 40, ____?

(A) 24 (B) 27 (C) 36 (D) 38

3. 2, 5, 12, 27, 58, _____, 248

(A) 111 (B) 121 (C) 122 (D) 125

4. 0.5, 0.55, 0.65, 0.8, ____?

(A) 0.7 (B) 0.9 (C) 0.95 (D) 1

5. 11, 13, 17, 19, 23, 29, 31, 37, 41, ____?

(A) 43 (B) 47 (C) 51 (D) 53

6. 20, 19, 17, _____, 10, 5

(A) 15 (B) 14 (C) 13 (D) 12

7. 1, 4, 27, 16, _____, 36, 343

(A) 125 (B) 50 (C) 78 (D) 132

8. 2, 7, 14, 23, _____, 47

(A) 31 (B) 28 (C) 34 (D) 38

9. 5, 11, 17, 25, 33, 43, ____?

(A) 49 (B) 51 (C) 52 (D) 53

10. 4, 9, 13, 22, 35, ____?

(A) 57 (B) 70 (C) 63 (D) 75

Worksheet - 2

Topic : Whole Numbers

Q. Choose the correct option:

1. If $A = 1$, $B = 2$, $C = 3$, find the value of $(A + 1) (B + 1) (C + 1) + 7$.
(A) 7 (B) 0 (C) 31 (D) 10
2. A class of boys stand in a long line. One boy is 9th in order from both ends. How many boys are there in the class ?
(A) 17 (B) 18 (C) 20 (D) 37
3. The whole number which is not natural number
(A) 1 (B) 0 (C) 3 (D) 10
4. The natural number whose predecessor does not exist
(A) 0 (B) 1 (C) 15 (D) 100
5. How many times does the digit 5 occur in tens place in the natural numbers from 100 to 1000?
(A) 10 (B) 20 (C) 100 (D) 90
6. The smallest whole numbers is
(A) 1 (B) 0 (C) 2 (D) Not defined.
7. The successor of the biggest 3 digit number is
(A) 100 (B) 1000 (C) 3000 (D) 999
8. Smallest 7-digit number using only one digit is :
(A) 1111111 (B) 1000000 (C) 2222222 (D) 9999999
9. What should be added to 217139 to form one million ?
(A) 782816 (B) 782861 (C) 788261 (D) 882861
10. Quotient obtained on dividing 500500500500500 by 500 is :
(A) 11111 (B) 55555 (C) 1001001001001 (D) 1001001001001002

Worksheet - 3

Topic : Playing with Numbers

Q. Choose the correct option:

1. One billion = _____ million

- (A) 10 (B) 100 (C) 1000 (D) 10000

2. Smallest odd prime number is:

- (A) 2 (B) 3 (C) 1 (D) 0

3. Difference between the place value of 5 in 578953 is:

- (A) 500000 (B) 578950 (C) 499950 (D) 55000550

4. Smallest odd composite number is:

- a) 1 (B) 3 (C) 9 (D) 7

5. Greatest 4–digit number having 4 at hundreds place is:

- (A) 9999 (B) 9949 (C) 9499 (D) 4999

6. The product of 42×29 to nearest hundred is:

- (A) 1218 (B) 1200 (C) 1000 (D) 1210

7. How many 7's are there in the following series which are not immediately followed by 3 but immediately preceded by 8 ?

898762263269732872778737794

- (A) 2 (B) 3 (C) 4 (D) 6

8. The smallest digit 'p' such that $5p729$ is divisible by 3 is

- (A) 1 (B) 4 (C) 0 (D) 2

9. Which of the following is not the correct representation of Roman Numeral:

- (A) CXIII (B) LXV (C) XXXI (D) LLX

10. Roman representation of 769 is:

- (A) DCCLXIX (B) CCDXLIX (C) CCCDDLXIX (D) CCCMLXIX

Worksheet - 4

Topic : Fractions and Decimals

Q. Choose the correct option:

- The students in a wood working class were building birdhouses. It takes four pieces of wood (each piece $\frac{3}{4}$ of foot long) to build a birdhouse. At most, how many birdhouses can be made from 4 feet of wood?
(A) 1 (B) 3 (C) 4 (D) 5
- If Mrs. Sharma bought 18.5 litres of ghee for Rs. 3931.25, then cost of ghee per litre is:
(A) Rs. 212.50 (B) Rs. 222.50 (C) Rs. 237.50 (D) Rs. 243.50
- Which of the following is an improper fraction?
(A) $\frac{3}{4}$ (B) $\frac{2}{3}$ (C) $\frac{3}{5}$ (D) $\frac{11}{7}$.
- A car runs 16 km using 1 litre of petrol. How much distance will it cover using $\frac{4}{32}$ litres of petrol?
(A) 33 km (B) 42 km (C) 44 km (D) None of these
- What fraction of prime numbers exist from 40 and 60.
(A) $\frac{5}{21}$ (B) $\frac{40}{60}$ (C) $\frac{2}{3}$ (D) $\frac{4}{6}$
- A shopkeeper bought 100 kg of vegetables. Out of which $\frac{2}{5}$ of the vegetable was potatoes. Find the total weight of other vegetables.
(A) 40 kg (B) 60 kg (C) 20 kg (D) 80 kg
- Vinita can type 28 words per minute. At this rate, how many words can Vinita type in 5.5 minutes?
(A) 154 (B) 157 (C) 159 (D) 162
- In a school, $\frac{4}{5}$ of the children are boys and the number of girls is 100. Find the number of boys in school.
(A) 80 (B) 125 (C) 400 (D) 500
- A class of boys stand in a long line. One boy is 9th in order from both ends. How many boys are there in the class ?
(A) 17 (B) 18 (C) 20 (D) 37

10. The length of a ribbon roll is 5 m 25 cm. The total length in metres of 12 such ribbon rolls.

- (A) 63 m (B) 5.25 m (C) 12.5 m (D) 60 m



Worksheet - 5

Topic: BODMAS

Q. Choose the correct option:

1. Value of $66 \div 6(2+9)$ is :

- (A) 0 (B) 1 (C) 11 (D) 10

2. Solution of $4 + 3(5 + 3)$ is :

- (A) 56 (B) 28 (C) 22 (D) 15

3. On simplifying $5[18 + \{3+4(52)\}]$ the result is :

- (A) 1145 (B) 1285 (C) 1005 (D) 1154

4. If $A = 1, B = 2, C = 3$, find the value of $(A + 1)(B + 1)(C + 1) + 7$.

- (A) 7 (B) 0 (C) 31 (D) 10

5. Value of $[(36) \div 12] \div [3 \div (1)]$ is:

- (A) 3 (B) 36 (C) 1 (D) 0

Solve the following expression:

6. $(3080 + 6160) / 28$

- (A) 380 (B) 330 (C) 310 (D) 350

7. $5004 / 139 - 6$

- (A) 25 (B) 27 (C) 29 (D) 30

8. $7500 + (1250 / 50)$

- (A) 7500 (B) 7525 (C) 7550 (D) 8000

9. $(31/10) \times (3/10) + (7/5) / 20$

- (A) 0 (B) 1 (C) 10 (D) 100

10. $(6/119) \times (63/8) \times (17/9)$

- (A) $1/4$ (B) $2/4$ (C) $3/4$ (D) 4



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CLASS – VII

MENTAL MATHS WORKSHEET

Worksheet -1

Topic:-Number Series

Q1. 16, 33, 65, 131, 261, (...)

a)523

b) 521

c)613

d) 721

Q2. 10, 5, 13, 10, 16, 20, 19, (...)

a)22

b)40

c)38

d)23

Q3. 1, 4, 9, 16, 25, 36, 49, (...)

a)54

b)56

c)64

d)81

Q4. 2, 6, 12, 20, 30, 42, 56, (...)

a)61

b)64

c)72

d)70

Q5. 8, 24, 12, 36, 18, 54, (...)

a)27

b)108

c)68

d)72

Q6. 11, 13, 17, 19, 23, 29, 31, 37, 41, (...)

a)43

b)47

c)51

d)53

Q7.9, 12, 11, 14, 13,(...), 15

a)12

b)16

c)10

d)17

Q8. 1, 4, 27, 16,(...), 36, 343

a)125

b)50

c)78

d)132

Q9. 4, 9, 13, 22, 35,(...)

a)57

b)70

c)63

d)75

Q10.5, 11, 17, 25, 33, 43,(...)

a)49

b)51

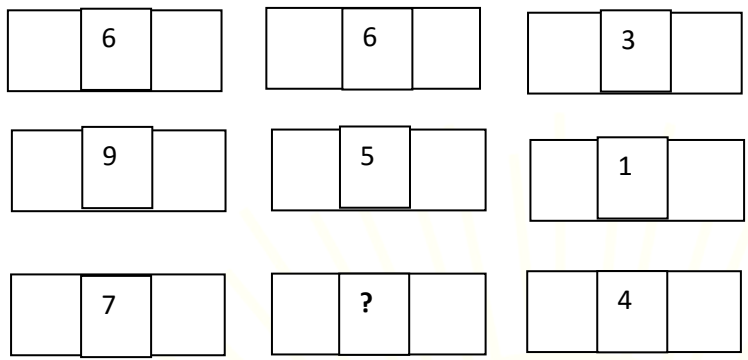
c)52

d)53

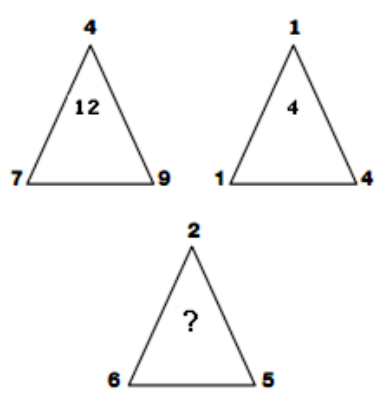
Worksheet -2

TOPIC:Puzzles

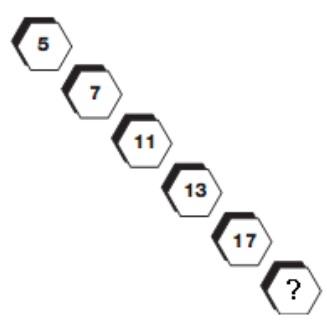
Q1. What number comes in the question mark?



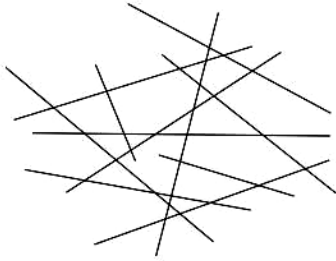
Q2. Which number replaces the question mark?



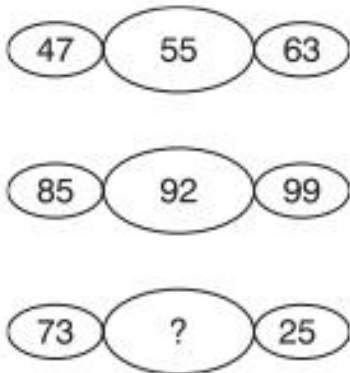
Q3. Which number completes the puzzles?



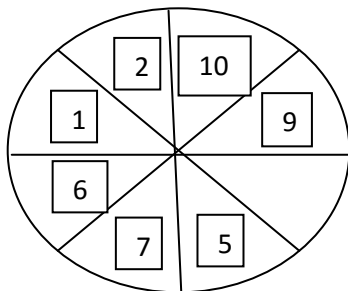
Q4. How many lines appear below?



Q5. What number should replace the question mark?



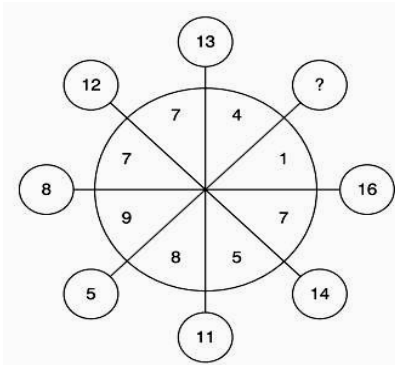
Q6. What number should replace the blank space?



Q7. What number should replace the question mark?

			14	
	22			
			34	
41				
		53		?

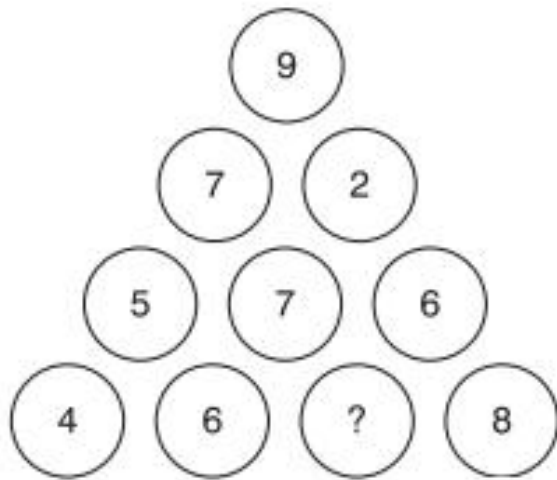
Q8. What number should replace the question mark?



Q9. How many rectangles are there in the figure?



Q10. What number should replace the question mark?



Worksheet -3
Topic:-Decimals

Q1. What decimal of an hour is a second ?

- a).0025
- b).0256
- c).00027
- d).000126

Q2.The value of $\frac{0.1 \times 0.1 \times 0.1 + 0.02 \times 0.02 \times 0.02}{0.2 \times 0.2 \times 0.2 + 0.04 \times 0.04 \times 0.04}$ is:

- a)0.0125
- b)0.125
- c)0.25
- d)0.5

Q3.If $2994 \div 14.5 = 172$, then $29.94 \div 1.45 = ?$

- a)0.172
- b)1.72
- c)17.2
- d)172

Q4. 4.036 divided by 0.04 gives :

- a)1.009
- b)10.09
- c)100.9
- d)None of these

Q5. $3889 + 12.952 - ? = 3854.002$

- a)47.095
- b)47.752
- c)47.932
- d)47.95

Q6.Which of the following fractions is greater than $\frac{3}{4}$ and less than $\frac{5}{6}$?

- a). $\frac{1}{2}$
- b). $\frac{2}{3}$
- c). $\frac{4}{5}$
- d). $\frac{9}{10}$

Q7. $617 + 6.017 + 0.617 + 6.0017 = ?$

- a)6.2963
- b)62.965
- c)629.6357
- d)None of these

Q8. $0.002 \times 0.5 = ?$

- a)0.0001
- b)0.001
- c)0.01
- d)0.1

Q9. $34.95 + 240.016 + 23.98 = ?$

- a)298.0946
- b)298.111
- c)298.946
- d)299.09

Q10. $\frac{5 \times 1.6 - 2 \times 1.4}{1.3} = ?$

- a)0.4
- b)1.2
- c)1.4
- d)4

Worksheet -4

Topic:-Ratio & Proportion

- A ratio equivalent to 3 : 7 is:
(i) 3 : 9 (ii) 6 : 10 (iii) 9 : 21 (iv) 18 : 49
- The ratio 35 : 84 in simplest form is:
(i) 5 : 7 (ii) 7 : 12 (iii) 5 : 12 (iv) none of these
- In a class there are 20 boys and 15 girls. The ratio of boys to girls is:
(i) 4 : 3 (ii) 3 : 4 (iii) 4 : 5 (iv) none of these
- Two numbers are in the ratio 7 : 9. If the sum of the numbers is 112, then the larger number is:
(i) 49 (ii) 72 (iii) 63 (iv) 42
- The ratio of 1.5 m to 10 cm is:
(i) 1 : 15 (ii) 15 : 10 (iii) 10 : 15 (iv) 15 : 1
- The ratio of 1 hour to 300 seconds is:
(i) 1 : 12 (ii) 12 : 1 (iii) 1 : 5 (iv) 5 : 1
- 7 : 12 is equivalent to:
(i) 28 : 40 (ii) 42 : 71 (iii) 72 : 42 (iv) 42 : 72
- The first, second and fourth terms of a proportion are 16, 24 and 54 respectively. Then the third term is:
(i) 36 (ii) 28 (iii) 48 (iv) 32
- If 12, 21, 72, 126 are in proportion, then:
(i) $12 \times 21 = 72 \times 126$ (ii) $12 \times 72 = 21 \times 126$
(iii) $12 \times 126 = 21 \times 72$ (iv) none of these
- The length and breadth of a rectangle are in the ratio 3 : 1. If the breadth is 7 cm, then the length of the rectangle is:
(i) 14 cm (ii) 16 cm (iii) 18 cm (iv) 21 cm

Worksheet -5

Topic:- Simplification of Fractions

Q1. $4/7 \div [12/7 - 3/14]$

- (i) $6/21$ (ii) $8/21$ (iii) $5/21$ (iv) $4/21$

Q2. $7 + \{1/3 + 2/9 \times (7/4 - 5/12)\}$

- (i) $135/19$ (ii) $161/17$ (iii) $206/27$ (iv) $208/25$

Q3. $6/17 \times 34/15 - 6/35$ of $2\frac{1}{3}$

- (i) $2/5$ (ii) $3/7$ (iii) $9/4$ (iv) $2/7$

Q4. $4\frac{1}{3} - \{17/4 - 5\frac{1}{4}\}$

- (i) $10/4$ (ii) $11/4$ (iii) $16/3$ (iv) $12/7$

Q5. $4/7 \div 5/7 \times 9/11$

- (i) $36/55$ (ii) $44/67$ (iii) $39/59$ (iv) $23/55$

Q6. $6\frac{1}{3} \div 3/5$ of $19/9 + 6/3$

- (i) 8 (ii) 6 (iii) 7 (iv) 11

Q7. $12/7$ of $21 + 15/4 \div 3/7$

- (i) $161/5$ (ii) $137/7$ (iii) $122/9$ (iv) $179/4$

Q8. $\frac{3}{4}$ of $16/27 + 23/14 + 12/18$

- (i) $301/125$ (ii) $347/126$ (iii) $101/199$ (iv) $188/111$

Q9. $7/9 \times 1\frac{1}{5} \div 8/15$

- (i) $77/24$ (ii) $71/25$ (iii) $67/13$ (iv) $55/19$

Q10. $(1/5 + 4/5)$ of $3\frac{1}{3}$

- (i) $10/7$ (ii) $10/9$ (iii) $11/7$ (iv) $10/3$



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CLASS – VIII

Mathematics

Mathematics plays a very important role in day to day life. To enhance the numerical ability and reasoning skills of the students, a regular practice is required. Keeping this objective in mind worksheets comprising 50 questions in the form of Multiple choice questions have been designed. In order to develop mathematical flexibility in solving problems and strengthening concepts learnt so far 30 more subjective questions have been included.

Note: Kindly note that the subjective questions are to be done in A4 size sheets and multiple choice questions to be done on the sheets after downloading from the website.



SERVICE BEFORE SELF

MENTAL MATHS WORKSHEET

Worksheet-1

TOPIC: BODMAS RULE

Perform the operation in the correct order

1. $78 - [5 + 3 \text{ of } (25 - 2 \times 10)]$
a) 58 b) 42 c) -42 d) 102
2. $6 + 3 \text{ of } 7 - 5$
a) 18 b) 22 c) 51 d) 12
3. $52 - 4 \text{ of } (17 - 12) + 4 \times 7$
a) 268 b) 112 c) 60 d) 30
4. $7 \div (3 - 2) \times 2 \div (2 \div (8 - 6))$
a) 14 b) $7/2$ c) 7 d) $-41/8$
5. $[\{(3 \div 3) \times 3\}^{9-6}]^{9-9} \div 8$
a) $9/8$ b) $1/8$ c) $27/8$ d) 1
6. $3 \div (1^{10 \div 10 \div 1} \div 1 \times 1)$
a) 1 b) 2 c) $3/2$ d) 3
7. $[-2 + 9 + (-9) \div (-1)^{10}]^2$
a) 4 b) -4 c) 32 d) 256
8. $10 \div [1 + 8 \div \{10 \div (10 \div 2) \div 1\}]$
a) 2 b) 5 c) $20/9$ d) 1
9. $6 \times (5 \div (4 \div 4 \div 1) - 4) + 5$
a) 5 b) 0 c) 11 d) 35
10. $(9 \div 9)^6 - \{9 - (6 - 4)^3\}$
a) -342 b) 0 c) 344 d) -7

Worksheet-2

TOPIC- FRACTIONS AND DECIMALS

1. Evaluate : $\frac{(2.39)^2 - (1.61)^2}{2.39 - 1.61}$

- A. 2
B. 4
C. 6
D. 8

2. What decimal of an hour is a second ?

- A. .0025
B. .0256
C. .00027
D. .000126

3. The value of $\frac{(0.96)^3 - (0.1)^3}{(0.96)^2 + 0.096 + (0.1)^2}$ is:

- A. 0.86
B. 0.95
C. 0.97
D. 1.06

4. The value of $\frac{0.1 \times 0.1 \times 0.1 + 0.02 \times 0.02 \times 0.02}{0.2 \times 0.2 \times 0.2 + 0.04 \times 0.04 \times 0.04}$ is:

- A. 0.0125
B. 0.125
C. 0.25
D. 0.5

5. If $2494 \div 14.5 = 172$, then $24.94 \div 1.45 = ?$

- A. 0.172
B. 1.72
C. 17.2
D. 172

6. When 0.232323..... is converted into a fraction, then the result is:

- A. $\frac{1}{5}$
B. $\frac{2}{9}$
C. $\frac{23}{99}$
D. $\frac{23}{100}$

7. $\frac{0.009}{?} = 0.01$

A. 0.0009

B. 0.09

C. 0.9

D. 9

8. $\frac{(0.1667)(0.8333)(0.3333)}{(0.2222)(0.6667)(0.1250)}$ is approximately equal to:

A. 2

B. 2.40

C. 2.43

D. 2.50

9. $3889 + 12.952 - ? = 3854.002$

A. 47.095

B. 47.752

C. 47.932

D. 47.95

10. If $\frac{144}{0.144} = \frac{14.4}{x}$, then the value of x is:

A. 0.0144

B. 1.44

C. 14.4

D. 144

Worksheet-3

TOPIC: PERCENTAGE

- A batsman scored 110 runs which included 3 boundaries and 8 sixes. What percent of his total score did he make by running between the wickets?
 - 45%
 - $45\frac{5}{11}\%$
 - $54\frac{6}{11}\%$
 - 55%
- What percentage of numbers from 1 to 70 has 1 or 9 in the unit's digit?
 - 1
 - 14
 - 20
 - 21
- A fruit seller had some apples. He sells 40% apples and still has 420 apples. Originally, he had:
 - 588 apples
 - 600 apples
 - 672 apples
 - 700 apples
- If 20% of $a = b$, then $b\%$ of 20 is the same as:
 - 4% of a
 - 5% of a
 - 20% of a
 - None of these
- Three candidates contested an election and received 1136, 7636 and 11628 votes respectively. What percentage of the total votes did the winning candidate get?
 - 57%
 - 60%
 - 65%
 - 90%
- The population of a town increased from 1,75,000 to 2,62,500 in a decade. The average percent increase of population per year is:
 - 4.37%
 - 5%
 - 6%
 - 8.75%

7. A man buys a cycle for Rs. 1400 and sells it at a loss of 15%. What is the selling price of the cycle?

A. Rs. 1090

B. Rs. 1160

C. Rs. 1190

D. Rs. 1202

8. 0.01 is what percent of 0.1?

A. $1/100$

B. $1/10$

C. 10

D. 100

9. Two successive discount of 10% and 5% is equal to a single discount of

A. 15%

B. $7\frac{1}{2}\%$

C. 12%

D. $14\frac{1}{2}\%$

10. Half of 1 percent as decimal is

A. 0.005

B. 0.02

C. 0.05

D. 0.2

Worksheet-4

TOPIC:- NUMBER SERIES

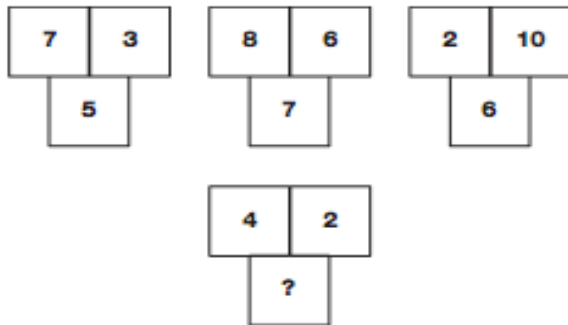
1. Look at this series: 58, 52, 46, 40, 34, ... What number should come next?
A. 26
B. 28
C. 30
D. 32
2. Look at this series: 3, 4, 7, 8, 11, 12, ... What number should come next?
A. 7
B. 10
C. 14
D. 15
3. Look at this series: 8, 22, 8, 28, 8, ... What number should come next?
A. 9
B. 29
C. 32
D. 34
4. Look at this series: 14, 28, 20, 40, 32, 64, ... What number should come next?
A. 52
B. 56
C. 96
D. 128
5. Look at this series: 80, 10, 70, 15, 60, ... What number should come next?
A. 20
B. 25
C. 30
D. 50
6. Look carefully for the pattern, and then choose which pair of numbers comes next.
9 11 33 13 15 33 17
A. 19 33
B. 33 35
C. 33 19
D. 15 33
7. 9 12 11 14 13 16 15
A. 14 13
B. 18 21
C. 18 17
D. 12 13
8. Look at this series: 664, 332, 340, 170, ____, 89, ... What number should fill the blank?
A. 85
B. 97
C. 109
D. 178
9. Look at this series: J14, L16, __, P20, R22, ... What number should fill the blank?
A. S24
B. N18
C. M18
D. T24
10. Look at this series: U32, V29, __, X23, Y20, ... What number should fill the blank?
A. W26
B. W17
C. Z17
D. Z26

Worksheet - 5

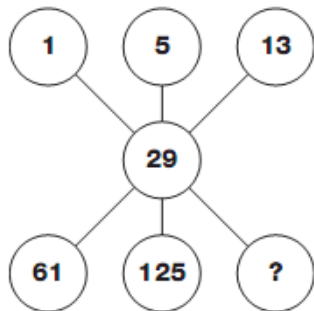
TOPIC-: NUMBER PUZZLE

Which number replaces the question mark?

1.



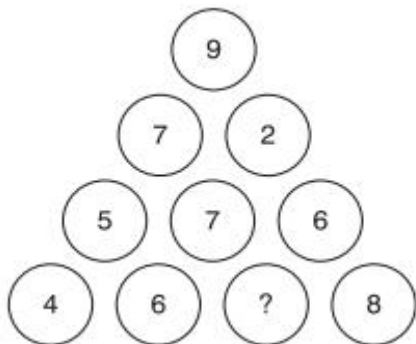
2.



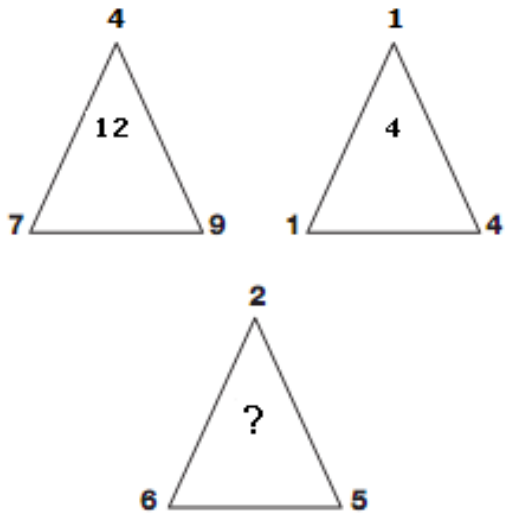
3.



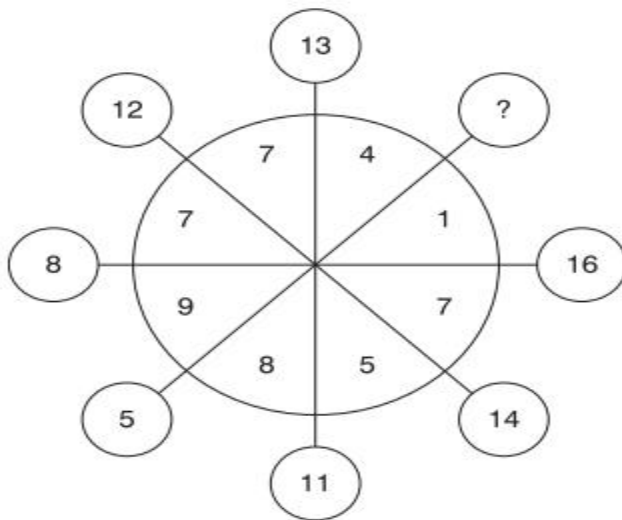
4.



5.



6.



7.

			14	
	22			
			34	
41				
		53		?

8.

10	
8	13
16	6
4	19
22	?

9.

72
69
64
57
48
?

SERVICE BEFORE SELF

10.

