



# TALENT TREE SCHOOL, MEHAM

## CLASS- VII, SUBJECT- MATHEMATICS

### WORKSHEET-2 (FRACTIONS)

Q1) Write 5 equivalent fraction of the following:

a)  $\frac{3}{7}$

b)  $\frac{5}{8}$

Q2) Arrange the following fractions in ascending order:

$$\frac{2}{7}, \frac{4}{11}, \frac{3}{10}, \frac{11}{22}, \frac{13}{14}$$

Q3) Arrange the following fractions in descending order:

$$\frac{2}{3}, \frac{3}{4}, \frac{5}{6}, \frac{7}{8}, \frac{9}{10}$$

Q4) Fill in the blanks:

a) The fraction  $\frac{38}{95}$  in its lowest term is \_\_\_\_\_.

b) The sum of  $\frac{2}{7}$ ,  $\frac{4}{7}$  and  $\frac{3}{7}$  is \_\_\_\_\_.

c) The fractions equivalent to  $\frac{3}{8}$  with denominator 40 is \_\_\_\_\_.

Q5) Subtract the sum of  $3\frac{5}{9}$  and  $3\frac{1}{3}$  from the sum of  $5\frac{5}{6}$  and  $4\frac{1}{9}$ .

Q6) What should be added to  $6\frac{7}{15}$  to get  $8\frac{1}{5}$ ?

Q7) Mrs soni bought  $7\frac{1}{2}$  litres of milk . Out of this milk ,  $5\frac{3}{4}$  litres was consumed. How much milk is left with her?

Q8) The cost of pen is ₹  $6\frac{2}{3}$  and that of a pencil is ₹  $4\frac{1}{6}$ . Which costs more and by how much?

Q9) A piece of wire,  $2\frac{3}{4}$  metres long , broke into two pieces. One piece is  $\frac{5}{8}$  metre long . How long is the other piece?

Q10) What should be subtracted from 10 to get  $3\frac{3}{4}$ ?



## Chapters 1 to 7

### Sample Question Paper 3

Maximum marks: 60

#### General Instructions

- All questions are compulsory.
- The question paper is divided into 5 sections.
  - Section A comprises of 10 multiple choice questions of 1 mark each, where you have to select one correct option.
  - Section B comprises of 7 questions of 2 marks each.
  - Section C comprises of 4 questions of 3 marks each.
  - Section D comprises of 4 questions of 5 marks each.
  - Section E comprises of 1 case study of 4 marks.

#### Section A

Question numbers 1 to 10 are of 1 mark each. Each question is provided with four choices out of which only one is correct. You have to choose the correct one.

- The digit having the greatest place value in the number 56,030 is:  
(a) 0 (b) 3 (c) 5 (d) 6
- The sum of the successor and additive inverse of 398 is  
(a) -1 (b) 0 (c) 1 (d) 2
- The identity element for multiplication of integers is:  
(a) 0 (b) 1 (c) 2 (d) 3
- A prime number is one which:  
(a) is divisible by 2 (b) has exactly 2 factors  
(c) has only 1 factor (d) is a multiple of another prime number
- Which of the following numbers is divisible by 6?  
(a) 60,483 (b) 71,281 (c) 72,008 (d) 96,342
- A circle is a:  
(a) simple curve only (b) closed curve only  
(c) simple and closed curve (d) polygon
- A tetrahedron is a:  
(a) prism with triangular base (b) pyramid with rectangular base  
(c) icosahedron (d) pyramid with triangular base
- If  $p$  denotes the sum of integers from -10 to +10 and  $q$  denotes the product of integers from -10 to +10 then:  
(a)  $p > q$  (b)  $p < q$  (c)  $p = q$  (d)  $p + q = 1,024$
- The multiplicative inverse of a negative integer is:  
(a) positive (b) negative  
(c) does not exist (d) may be positive or negative

10. The shaded portion in the given figure represents the fraction:

(a)  $\frac{1}{4}$

(b)  $\frac{1}{2}$

(c)  $\frac{3}{4}$

(d)  $\frac{1}{5}$



**Section B**

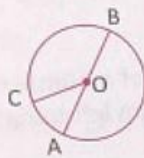
Question numbers 11 to 17 carry 2 marks each.

11. Write the number name of 7,45,32,601 according to the Indian system of numeration.
12. Find the value of  $2,756 \times 81 + 19 \times 2,756$ . Also mention the properties used.
13. Using divisibility test, determine whether 38,56,061 is divisible by 11 or not.
14. What is a polygon? Name the polygon having 6 sides.
15. How do we classify triangles on the basis of their sides?
16. Find all integers  $x$ , such that  $|x| \leq 2$ .
17. Meenal had to make 20 diagrams for her homework. She has made 8 sketches. What fraction of the homework is still left?

**Section C**

Question numbers 18 to 21 carry 3 marks each.

18. Give a rough estimate of the following by rounding off to the nearest hundreds and also a closer estimate by rounding off to nearest tens:  
 $3,25,215 - 20,180$
19. Find the HCF of the numbers 70, 105 and 75.
20. From the figure, identify



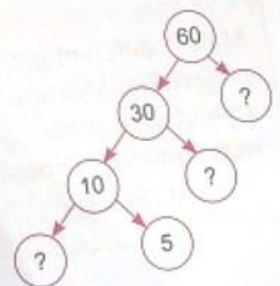
- (a) the diameter.
- (b) a sector.
- (c) a segment.

21. What is the difference between a fraction and a rational number? Is every rational number a fraction?

**Section D**

Question numbers 22 to 25 carry 5 marks each.

22. A box contains 4 strips of antibiotic capsules. Each strip has 9 capsules and each capsule contains 250 mg of medicine. What will be the total weight of medicine in grams in 50 such boxes?
23. Draw rough sketches of any four quadrilaterals and define them by giving their characteristic properties.
24. In an International Seminar on Oncology, surgeons from different countries participated.  $\frac{1}{8}$  of the participants were from the US,  $\frac{1}{5}$  from the UK,  $\frac{1}{12}$  from other European countries and the remaining participants were Indian. If 71 Indian surgeons participated, find the total number of surgeons who attended the seminar.
25. (a) A wholesaler has 120 kg rice of inferior quality, 180 kg rice of superior quality and 240 kg rice for exports. The wholesaler wants to sell the rice in sacks of equal capacity. What should be the greatest capacity of such a sack?  
(b) Write the missing number in the factor tree for 60.



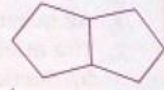
- (b) In a bar diagram if a scale of 1 unit length represents 5 lakhs, then \_\_\_\_\_ units will represent 35 lakhs.
- (c) The region enclosed by a plane closed figure is called its \_\_\_\_\_.
- (d) Area of a rectangle having length 9 cm and breadth 6 cm is \_\_\_\_\_.
- (e) Raghav reaches late to school 3 days in a week. The number of days he is late in  $x$  weeks is \_\_\_\_\_.

#### Section D

4. Answer the following in one word or in one sentence.

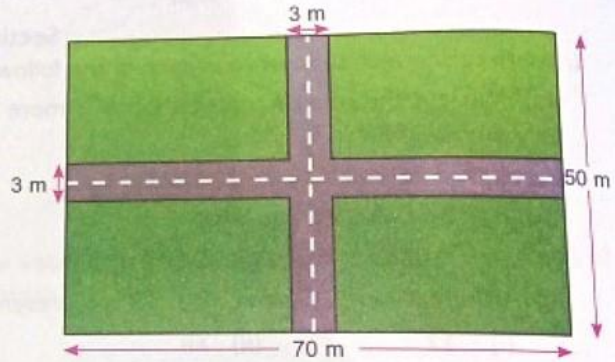
- (a) The integer  $-11.97$  lies between which two integers.
- (b) If the perimeter of a figure formed by joining two regular pentagons of same size is 56 cm, find the length of each side.
- (c) Write the result, if place values of all the digits of decimal number 43.81 are added.
- (d) Express 8 km 5 m in km using decimals.
- (e) What is the coefficient of  $ab^2$  in the expression  $3a^2b - 5ab^2 + 1$ ?

$$1 \text{ M} \times 5 = 5 \text{ M}$$



#### Section E

5. The length of a rectangular field is 7 m and breadth is 3 m. If a square field has the same perimeter as the rectangular field, find which field has a greater area. Write the areas of both fields? 2 M
6. A rectangular garden measures 70 m by 50 m. A path 3 m wide is built in the middle, one along the length and other along the breadth. What is the area of the remaining part of the park?



OR

The number of prefects from different classes in a school is shown by the following pictograph:

Class	Number of Prefects ☺ = 3 Prefects
III	☺
IV	☺ ☺
V	☺ ☺
VI	☺ ☺ ☺ ☺

Observe the pictograph and answer the following questions:

- (a) Which class has the maximum number of prefects? What is the number?
- (b) What is the total number of prefects from III to VI?
- (c) Is it true that the number of prefects from class III to V are more than the prefects from class VI? If yes, find by how much.

3 M

## Sample Question Paper 6

Maximum marks: 60

### General Instructions

1. All questions are compulsory.
2. The question paper is divided into 5 sections
  - (i) Section A comprises of 10 multiple choice questions of 1 mark each, where you have to select one correct option.
  - (ii) Section B comprises of 7 questions of 2 marks each.
  - (iii) Section C comprises of 4 questions of 3 marks each.
  - (iv) Section D comprises of 4 questions of 5 marks each.
  - (v) Section E comprises of 1 case study of 4 marks.

### Section A

Question numbers 1 to 10 are of 1 mark each. Each question is provided with four choices out of which only one is correct. You have to choose the correct one.

1. The greatest decimal among 4.109, 4.019, 4.099 and 4.19 is:
 

(a) 4.109	(b) 4.019
(c) 4.099	(d) 4.19
  2. The perimeter of the adjoining figure is:
 

(a) 8 cm	(b) 10 cm
(c) 14 cm	(d) 16 cm
- 
3. If a scale of 1 unit represents 20 cars in a bar diagram, 100 cars will be represented by a bar of length:
 

(a) 5 units	(b) 4 units
(c) 6 units	(d) 10 units
  4. If the length of the rectangle is doubled and its breadth is halved, the ratio of area of original rectangle to the area of the new rectangle is:
 

(a) 1 : 2	(b) 2 : 1
(c) 1 : 1	(d) 3 : 1
  5. Which of the following activities do not require the determination of area?
 

(a) Ploughing a field	(b) Fixing tiles in a floor
(c) Whitewashing the walls	(d) Building a boundary wall
  6. The sum of the coefficients of variable terms in  $8 - (x - y)$  is:
 

(a) 1	(b) -1
(c) 0	(d) 9

7. The solution of the equation  $7m - 2 = 19$  is:

- (a) -14 (b)  $\frac{7}{21}$   
(c) 3 (d) 14

8. Which of the following numbers are in proportion?

- (a) 1, 2, 3, 4 (b) 1, 4, 3, 2  
(c) 8, 4, 2, 1 (d) 1, 8, 2, 4

9. In which of the options the vertical line acts as a mirror?

- (a) L|L (b) P|P  
(c) N|N (d) M|M

10. The number of perpendicular bisectors a line segment can have is:

- (a) 1 (b) 2  
(c) 3 (d) 4

### Section B

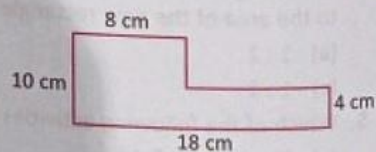
Question numbers 11 to 17 carry 2 marks each.

- Shamma travelled 7 km 108 m by bus and walked the remaining 62 m to reach her house. How much distance in km did she travel in all?
- If a bar graph shows heights of five mountain peaks, explain which bar represents the height of the highest and the lowest peaks.
- With the help of a ruler and compass only construct an angle of  $45^\circ$ . Also mention the steps of construction.
- What algebraic expression is obtained by subtracting the quotient of  $x$  by  $y$  from the product of  $x$  and  $y$ ?
- In a competition, 35 students appeared in an examination. Only 20 students passed the examination. What is the ratio of:  
(a) passed students to the failed students  
(b) failed students to the total students
- How many lines of symmetry does a parallelogram have? What about the line(s) of symmetry of a rhombus?
- Mention the names of mathematical instruments present in the geometry box and their uses.

### Section C

Question numbers 18 to 21 carry 3 marks each.

- Draw rough sketches of a scalene triangle, an isosceles triangle and an equilateral triangle and their corresponding lines of symmetry.
- Find the area and perimeter of the polygon shown in the figure given alongside.



- A truck requires 108 litres of diesel to cover a distance of 540 km. How much diesel will be required to cover a distance of 1,650 km?
- Chirag is 9 years old and his mother is 35 years old. After how many years, Chirag's mother will be 3 times his age?





# TALENT TREE SCHOOL, MEHAM

## WORK SHEET 1

### CLASS VII

### MATHEMATICS

## Integers

Q Verify  $a - (-b) = a + b$  for the following values of 'a' and 'b'.

(a)  $a = 75,$                  $b = 84$

(b)  $a = 118,$                $b = 125$

(c)  $a = 25,$                  $b = 30$

1) Write down a pair of integers whose

(a)                Sum is 3

(b)                Sum is 0

(c)                Difference is 2

(d)                Difference is 5

2) Verify the following :

(a)                 $(-21) \times [(-4) + (-6)] = [(-21) \times (-4)] + [(-21) \times (-6)]$

(b)                 $(-15) \times [(-8) + (-6)] = [(-15) \times (-8)] + [(-15) \times (-6)]$

3) Evaluate :

(a)                 $(-100) \div 5$

(b)                 $(-36) \div (-4)$

(c)                 $(-41) \div [(-40) + (-1)]$

(d)                 $0 \div (-18)$

(e)                 $[(-36) \div 12] \div 3$

(f)                 $(-50) \div (50)$

(g)                 $60 \div (-6)$

(h)                 $(-48) \div (-48)$

(i)  $(-13) \div (13)$

4) Do as directed :

1. In a test (+5) marks are given for every correct answer and (-2) marks are given for every incorrect answer.

(i) Radhika answered all the questions and scored 30 marks though she got 10 correct answers.

(ii) Jay also answered all the questions and scored ( **-12**) marks though he got 4 correct answers. How many incorrect answers had they attempted?

5) In a class test containing 15 questions, 4 marks are given for every correct answer and ( **-2**) marks are given for every incorrect answers :

i) Gurpreet attempts all question but only 9 of her answers are correct. What is her total score?

ii) One of her friends gets only 5 answers correct. What will be her score?

6) Write five pairs of integers (a, b) such that  $a + b = 6$ .

7) Find

i)  $(-3) \times (-6) \times (-2) \times (-1)$

ii)  $(-12) \times (-11) \times (10)$

iii)  $(-320) \times (-1)$

iv)  $(-18) \times 0 \times (-16)$

v)  $9 \times (-5) \times (-3)$

vi)  $(-41) \times 10$

vii)  $(-21) \times (-30)$

viii)  $(-1) \times 225$

ix)  $(-22) \times (-1)$

x)  $(-20) \times (-2) \times (-5) \times 7$

Use the sign  $>$ ,  $<$ ,  $=$

i)  $29 + (-18) - 15$    $36 - (-15) + 28$

ii)  $-241 + 76 + 86$    $-399 + 163 + 45$

iii)  $(-3) + 7 - (-18)$    $18 - 9 + (-6)$

iv)  $(-8) + (-6)$    $(-8) - (-6)$

v)  $(-18) + (18)$    $(-31) + (31)$

vi)  $86 - 45 + 23$    $-36 - (20) - (-8)$

- 10) In a quiz, positive marks are given for correct answers and negative marks are given for incorrect answers. If Jack's scores in five successive rounds were 65,  $-10$ ,  $-15$ , 20, 30 .

What was his total score at the end.

- 11) In a quiz, team A scored  $-50$ , 30, 0 and team B scored 60, 30,  $-40$  in three successive rounds.

Which team scored more?

- 12) The temperature at 12 noon was  $10^{\circ}\text{C}$  above zero. If it decreases at the rate of  $2^{\circ}\text{C}$  per hour until midnight, at what time would the temperature be  $8^{\circ}\text{C}$  below zero? What would be the temperature at mid - night?

- 13) Replace the blank with an integer to make it a true statement.

a) \_\_\_\_\_  $\times (-12) = -60$

b)  $5 \times$  \_\_\_\_\_  $= -35$

c)  $(-8) \times$  \_\_\_\_\_  $= 72$

d) \_\_\_\_\_  $\div (3) = 9$

e)  $(-20) \div$  \_\_\_\_\_  $= 5$