

FACULTY HIGHER SECONDARY SCHOOL

Half Year Sample Paper 2019-20

Subject- Mathematics

Class-VII

Maximum Mark: 80

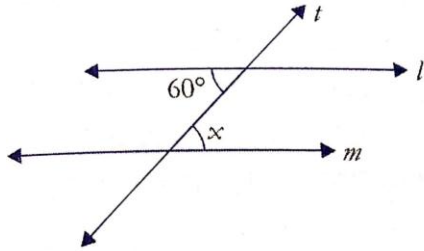
Time: 3hrs

SECTION A (Each question Carries one mark)

1. What must be subtracted from -1 to get -6?
(a) 5 (b) -5 (c) 7 (d) -7
2. Which of the following statement is true?
(a) $-11 > -8$ (b) $-11 < -8$ (c) -11 and -8 cannot be compared (d) $-11 = -8$
3. A fraction equivalent to $\frac{5}{7}$ is
(a) $\frac{35}{25}$ (b) $\frac{55}{77}$ (c) $\frac{25}{35}$ (d) $\frac{5}{35}$
4. How many equivalent fractions can you find for given fraction?
5. Multiplicative inverse of $\frac{-5}{7}$ is.....
6. $\frac{-102}{119}$ in standard form is
(a) $\frac{-4}{7}$ (b) $\frac{-6}{7}$ (c) $\frac{-6}{17}$ (d) none of these
7. Find the complement of 25°
8. How many point of intersection does two parallel line have?
9. Sum of three angles of a triangle is equal to
(a) One right angle (b) two right angles (c) three right angles (d) none
10. In a ΔPQR , m is the mid-point of PR, the median is
(a) PM (b) RM (c) QM (d) none of these
11. What is the total number of outcomes when a die is thrown?
12. If ΔABC is congruent to ΔPQR then name the side corresponding to AC.
13. When two triangles are side to be congruent?
14. What is the other name given to the altitude of a triangle?
15. Write down a pair of integers whose sum is -5.
16. Construct two equations starting with $x = 3$
17. p added to 4 gives 5 can be expressed as
(a) $p - 4 = 5$, (b) $4 - p = 5$ (c) $5 - p = 4$ (d) $p + 4 = 5$
18. Find the mean of first five composite numbers?
19. What is measure of the angle opposite to hypotenuse?
20. For comparison of two data, we use
(a) double bar graph (b) pictograph (c) bar graph (d) median

SECTION B (Each question Carries two marks)

21. Write a negative integer and a positive integer whose difference is -3
22. Sameera purchased $3\frac{1}{2}$ kg apples and $4\frac{3}{4}$ kg oranges. What is the total weight of fruits purchased by her?
23. Constructs two equation starting with $x = -2$
24. One of the angles of a triangle is 80° and the other two angles are equal. Find the measure of each of the equal angles.
25. The product of two rational numbers is -9. If one of the numbers is -12, find the other.
26. l and m are two parallel lines and t is a transversal. Find x .



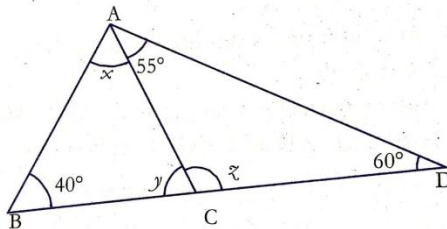
SECTION C(Each Question Carries Three Marks)

27. Simplify: $8\frac{5}{6} - 3\frac{3}{8} + 1\frac{7}{12}$
28. A shopkeeper gains Re1 on each pen and loses 40 paise on each pencil. He sells 45 pens and some pencils losing Rs5 in all. How many pencils does he sell?
29. A dice is thrown 200 times and the outcomes are noted as shown below:

Outcome	1	2	3	4	5	6
Frequency	21	30	42	38	29	40

When a dice is thrown at random, find the probability of getting a (i) 5, (ii) 3, (iii) 6

30. Solve for t : $16 = 4 + 3(t + 2)$
31. Arrange in descending order: $\frac{2}{9}, \frac{2}{3}, \frac{8}{21}$
32. Find the value of the angle x, y and z



33. The angles of a triangle are in the ratio 1:2:3. Find all the angles of the triangle.
34. Show that perimeter of two congruent triangle are equal.

SECTION D (Each Question Carries Four Marks)

35. The cost of $5\frac{1}{4}$ kg of mangoes is Rs147. At what rate per kg are the mangoes being sold.

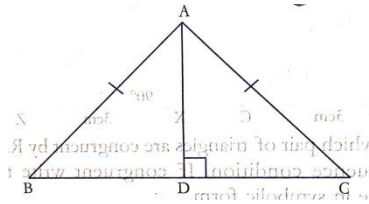
36. A mathematics teacher wants to see, whether the new technique of teaching she applied after quarterly test was effective or not. She takes the scores of the 5 weakest children in the quarterly test (out of 25) and in half yearly (out of 25):

Students	Ashish	Arun	Kavish	Maya	Rita
Quarterly	10	15	12	20	9
Half Yearly	15	18	16	21	15

37. In an isosceles triangle, the base angles are equal. The vertex angles are 40° . What are the base angles of the triangle?

38. A 5m long ladder when set against the wall of a house reaches a height of 4.8m. How far is the foot of the ladder from the wall?

39. In the given figure $AB = AC$ and AD is the bisector of $\angle BAC$.



(a) State three pairs of equal parts in triangle ADB and ADC .

(b) Is $\triangle ADB = \triangle ADC$? Give reasons.

(c) Is $\angle B = \angle C$? Give reason.

40. Draw two congruent triangles ABC and PQR show the corresponding sides and angles for the criteria

(a) SAS

(b) ASA