BRAIN INTERNATIONAL SCHOOL

SESSION 2024-25

CLASS: VII **TERM 1 REVISION SHEET** **SUBJECT: MATHS**

Chapter: Integers

Q1. Verify: (–50) × [37 + (–7)] = (–50) × 37 + (–50) × (–7)

Q2. Verify: a – (– b) = a + b for a = 65, b = 75

Q3. The sum of two integers is 39. If one of the integers is –55, then find the other integer.

Q4. Subtract 65 from (–80).

Q5. Multiply (–42) with (–7)

Q6. Divide 729 by (–9)

Q7. The product of two numbers is 105. If one number is (–7), find the other number.

Q8. Santosh conducted two experiments in the chemical laboratory. He kept the temperature at 22°C for the first experiment and –32°C for the other. What is the difference of temperature in these two experiments?

Q9. (– 4) + [15+ (–3)] = [– 4 + 15] + ?

(a) – 2 (b) – 3 (c) – 4 (d) – 5

Chapter: Fractions and Decimals

Q1. Find the reciprocal of $\frac{2}{5}$

Q2. Find $\frac{3}{4}$ of 36.

Q3. Find $\frac{2}{3}$ of $\frac{3}{4}$ of 80

Q4. Divide: $2\frac{1}{2} \div \frac{3}{5}$

Q5. The length of a rectangle is 7.1 cm and its breadth is 2.5 cm. What is the area of the rectangle?

Q6. Find the product of:

a) 0.246 × 100 b) 7.18 × 3.75 c) 78.9 × 0.01

Q7. Find the quotient of:

a) 1.673 ÷ 1000 b) 10.08 ÷ 9 c) 12.42 ÷ 2.7

Q8. A biscuit making unit uses 4.55kg of salt every week. How much salt is used by the biscuit-making unit every day?

Q9. How much will a milkman earn by selling 12.45 litres of milk if he sells 1 litre of milk for ₹21.40?

Q10.What should be added to the difference of 3.14 and 1.674 to get 9?

Chapter: Data Handling

Q1. Find the range of the following data:

21, 6, 7, 9, 4, 8, 13, 19

Q2. The time taken (in minutes) by 11 students of a particular class to go around a school are as follows:

7, 6, 5, 6, 5, 7, 6, 5, 6, 6, 7

Find the mean, median and mode for the data. Are they the same?

Q3. Find the mean of the following:

a) First ten odd natural numbers.
b) First eight prime numbers.
c) First five multiples of 10.
d) All the factors of 8.

Q4. Find the median of the following scores:

30, 40, 50, 60, 70, 80

Q5. Find the range, mean and median of the first five prime numbers.

Q6. Find the mode of the data : 27, 23, 39, 18, 27, 21, 27, 27, 40, 36, 27.

Q7. The daily maximum and minimum temperature of Delhi in four days of the week in the month of June.

Represent The given data using bar graph.

	Monday	Tuesday	Wednesday	Thursday
Maximum Temperature(°C)	37.2	35.8	38.2	36.5
Minimum Temperature(°C)	26.8	25.8	27.9	28.3

Chapter: Simple Equations

Q1. Write the equations for the given statements:

a) 3 times m plus 9 is 15.

b) Take away 4 from two times n, to get 2.

Q2. Solve the given equations:

a) $6y - 5 = 13$

b) $2q - 8 = -4$

Q3. Write the first step in solving following equations:

a) $m + 14 = 20$

b) $3(2y + 1) = 6$

Q4. Solve the equation $16 = 4 + 2(p+1)$ by transposing method.

Q5. The sum of three consecutive integers is 36. What are the integers?

Q6. Sandeep has twice as much money as Sonia. Together they have ₹150. How much money does Sonia have?

Q7. Solve $7n + 5 = 19$ by trial and error method.

Q8. Raju's father's age is 5 years more than three times Raju's age. Find Raju's age, if his father is 44 years old.

Q9. If $k + 7 = 10$, find the value of $9k - 50$.

(a) -77 (b) 23 (c) -23 (d) 77

Q10. Which of the following is the solution of the equation: $6 + x = 12$?

(a) 2 (b) 6 (c) -6 (d) -2

Q11. Check whether the value given in the brackets is a solution to the given equation or not:

$2(n-1) + 5(n-1) = 19(n-1)$ (For $n = 1$)

Chapter: Lines and Angles

Q1. Identify which of the following pairs of angles are complementary and which are supplementary.

a) 128°, 52° b) 47°, 43° c) 56°, 124° d) 45°, 45° e) 90°, 90°

Q2. Write the angle that is:

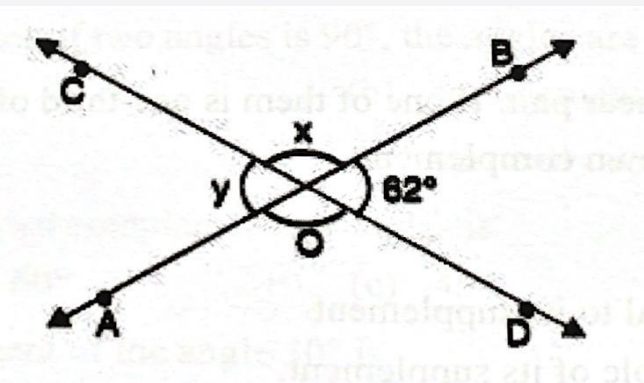
a) Complement of itself b) Supplement of itself

Q3. If the angles (4x+4)° and (6x–4)° are the supplementary angles, find the value of x.

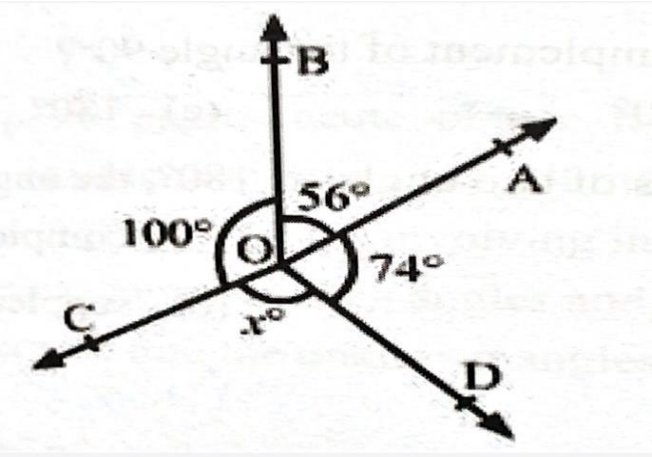
Q4. Find the measure of complement of 46°.

Q5. Find the measure of supplement of 75°.

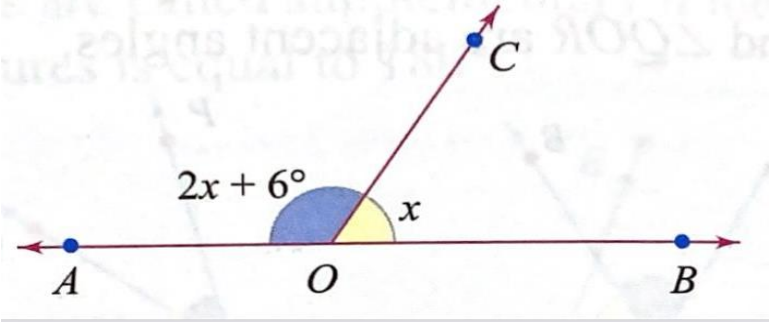
Q6. In the given figure, AB and CD intersect at O. If ∠BOD = 62°, find the value of x and y.



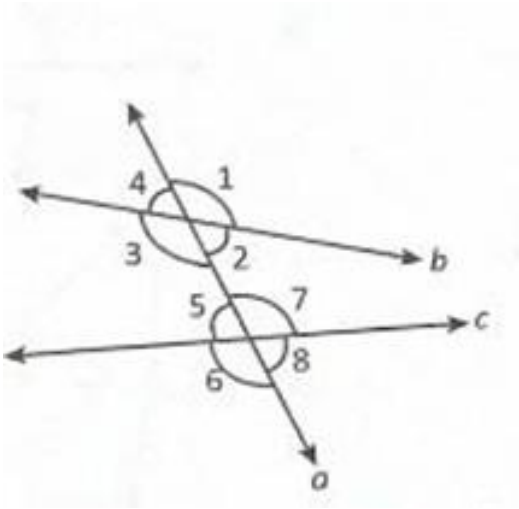
Q7. In the given figure, rays OA, OB, OC and OD are such that ∠AOB = 56°, ∠BOC = 100°, ∠COD = x° and ∠DOA = 74°. Find the value of x.



Q8. In the given figure, find the value of x and measure of angles.



Q9. Observe the given figure and match the following.



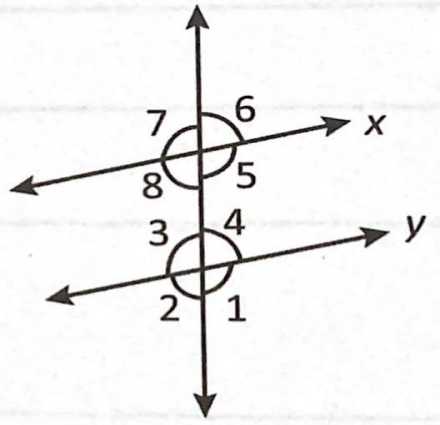
a) ∠6and∠1	i. Interior angles
b) ∠2and∠7	ii. Exterior angles
c) ∠1and∠4	iii. Pair of corresponding angles
d) ∠7and∠5	iv. Pair of alternate exterior angles
e) ∠8and∠2	v. Pair of alternate interior angles
f) ∠3and∠7	vi. Pair of interior angles on the same side of the transversal

Q10. Name the property that is used in each of the following statements.

a) If x ‖ y, then ∠8 = ∠4

b) If ∠4 = ∠6, then x ‖ y.

c) If x ‖ y, then ∠3 + ∠8 = 180°



Chapter: Perimeter and Area

Q1. Find the area of a parallelogram of base 5cm and height 3.2cm.

Q2. Find the area of a triangle whose base is 8cm and height is 5cm.

Q3. Find the total cost of wooden fencing around a circular garden of diameter 28m, if fencing costs at the rate of ₹ 300 per metre.

Q4. Find the circumference and area of the circle whose radius is 14cm.

Q5. Find the area of a circle whose diameter is 7cm.

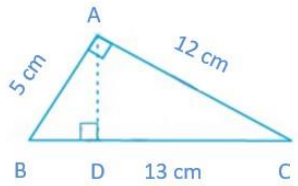
Q6. Find the height of a triangle whose base is 15cm and area 120 cm^2.

Q7. ABCD is a parallelogram, in which AB=8cm, AD=6cm and altitude AE=4cm. Find the altitude corresponding to side AD.

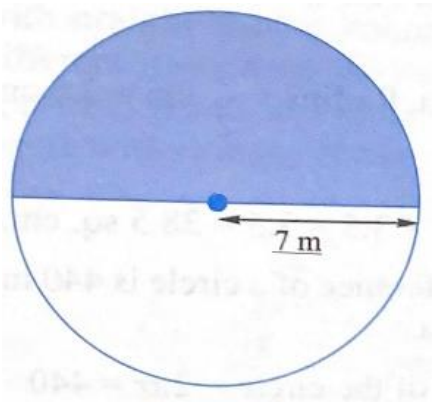
Q8. A wheel has a radius of 28cm. How many revolutions will it make to travel 704m?

Q9. The inner and outer radii of a cylindrical pipe are 4cm and 5cm respectively. Find the area of cross section of the pipe. Use Π= 3.14

Q10. ΔABC is right angled at A. AD is perpendicular to BC. If AB = 5 cm, BC = 13 cm and AC = 12 cm, Find the area of ΔABC.



Q11. Find the perimeter of given figure.



Q12. Area of triangle PQR is 100 cm^2. If altitude QT is 10 cm, then its base PR is

(a) 20 cm (b) 15 cm (c) 10 cm (d) 5 cm

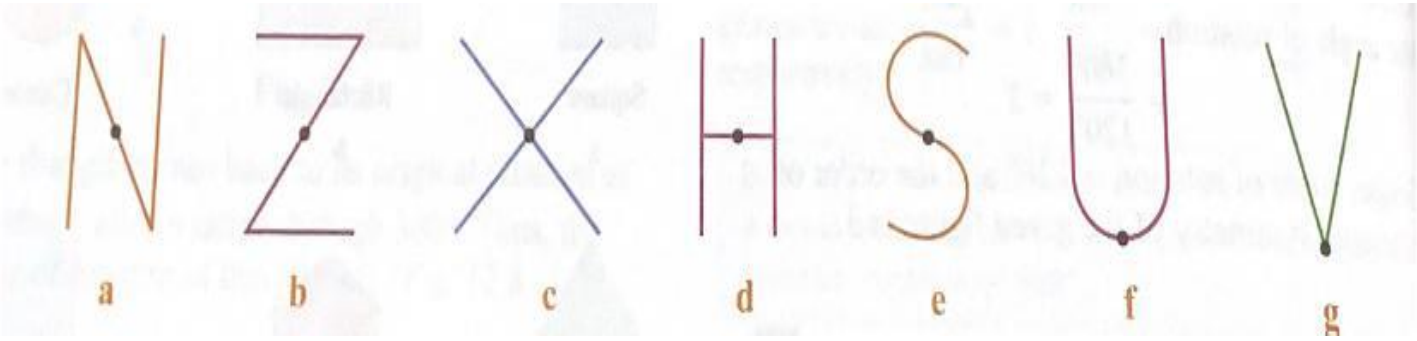
Q13. Circumference of a circle of diameter 10 cm is

(a) 3.14 cm (b) 31.4 cm (c) 15.7 cm (d) 1.57 cm

Chapter: Symmetry

Q1. How many lines of symmetry are there in a scalene triangle?

Q2. Find the angle of rotation and the order of rotational symmetry for the following alphabets:



Q3. From the English alphabet, name three capital letters:

a) That has no line of symmetry.
b) Which have vertical line of symmetry.
c) Which have horizontal line of symmetry.
d) Which have both vertical and horizontal line of symmetry.

Q4. Write three capital letters of English which have both:

a) Both rotational symmetry and reflection symmetry.
b) Reflection symmetry but not rotational symmetry.
c) Rotational symmetry but not reflection symmetry.
d) Neither rotational symmetry and reflection symmetry.

Q5. Name any two figures that have both line symmetry and rotational symmetry.

Q6. A circular wheel has eight spikes. What is its angle of rotation and order of rotational symmetry?

Q7. What is the order of rotational symmetry of a ceiling fan with three blades when seen from directly under the fan?

Q8. What is order of rotational symmetry of:

a) An Oval b) An isosceles triangle c) An equilateral triangle
d) A rhombus e) A regular octagon

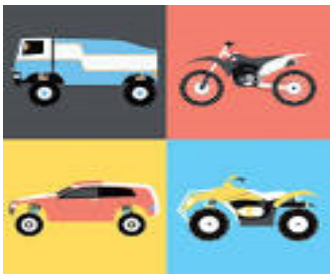
DIRECTION: In the question number 9, a statement of **Assertion(A**) is followed by a statement of **Reason (R).** Choose the correct option.

(a) Both Assertion and Reason are true and Reason is a correct explanation of Assertion.
(b) Both Assertion and Reason are true but Reason is not a correct explanation of Assertion.
(c) Assertion is true and Reason is false
(d) Assertion is false and Reason is true.

Q9) **Assertion :** Order of rotational symmetry of a rectangle is two.

Reason: A figure has rotational symmetry if you can rotate the figure around centre of rotation, so that it coincides with itself.

Case Study-based Questions.



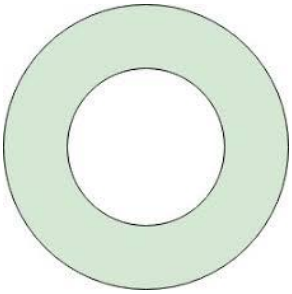
Q1. Rohit recently learnt about the mileage of vehicles, i.e. the distance covered by a vehicle in one litre of petrol. They owned a car and a two-wheeler. The car covers a distance of 88.88 km in 2.2 hours and uses 2 litres of petrol. The two-wheeler covers a distance of 55.0 km in 1.1 hour and uses one litre of petrol.

On the basis of the given information, answer the following questions:

(a) What is the average distance covered by a car in 5 litre petrol? (1)

(b) How much distance will two-wheeler cover in 10 litres of petrol? (1)

(c) Find the average distance covered by the car and scooter in 1 hour. (2)



Q2. A farmer has a circular field. He plans to install a sprinkler in the center of the field. The sprinkler and the field forms concentric circles, i.e. two circles with the same center but different radius. The radius of the field is 10 m and the radius of the sprinkler is 8 m. He wishes to built a path on the remaining area of the field. The cost of building path is ₹ 20 per m^2 (take π = 3.14)

On the basis of the given information, answer the following questions:

(a) Find the area of the field. (1)

(b) Find the area of the field that can be watered by the sprinkler. (1)

(c) Find the cost of building the path. (2)