

Class 9 Maths
Term 1 Exam 2026-27
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Duration: 3 hours

Maximum Marks: 80

General Instructions

1. This Question Paper has 5 Sections A-E.
 2. Section A has 20 MCQs carrying 1 mark each.
 3. Section B has 5 questions carrying 02 marks each.
 4. Section C has 6 questions carrying 03 marks each.
 5. Section D has 4 questions carrying 05 marks each.
 6. Section E has 2 case based questions carrying 06 marks each
 7. All Questions are compulsory.
 8. Draw neat figures wherever required.
 9. Take $\pi = 22/7$ wherever required if not stated.
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Section A

Question number 1 to 20 carry 1 mark each.

1. The distance between the points $(3, -5)$ and $(11, 10)$ is ____
(a) 17 (b) 15 (c) 12 (d) 10
2. The degree of the polynomial $x^5 + x - 4x^3 - 7$ is ____
(a) 2 (b) 3 (c) 4 (d) 5
3. What is the value of x ? Given $\frac{2x+3}{5} + 5 = 12$
(a) $\frac{9}{2}$ (b) 4 (c) 12 (d) 16
4. The value of $16x^3 + 10x - 9$ if $x = \frac{1}{2}$ is ____
(a) 3 (b) -2 (c) 2 (d) 5
5. The point $A(-3, 5)$ is in which quadrant?
(a) First (b) Second (c) Third (d) Fourth
6. The slope of the line $2y = 6x - 7$ is ____
(a) 3 (b) 6 (c) -7 (d) 2
7. What is the degree of a quadratic polynomial?
(a) One (b) Two (c) Three (d) Four
8. What angle does a quarter circle subtend at the center
(a) 60° (b) 90° (c) 45° (d) 270°
9. Which of the following represents linear growth
(a) $y = 55 - 6x$ (b) $y = +10$ (c) $y = -20 + 5x$ (d) $y = -5$

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10. Find the 5th term of a GP with common ratio 3, whose 3th term is 162.
 (a) 1458 (b) 4374 (c) 729 (d) 2187
11. $(-15) \times 3 = \underline{\hspace{2cm}}$
 (a) 45 (b) -45 (c) 5 (d) -5
12. A merchant in the port city of Lothal is exchanging bags of spices for copper ingots. He receives 15 ingots for every 2 bags of spices. If he brings 12 bags of spices to the market, how many copper ingots will he leave with?
 (a) 60 (b) 90 (c) 100 (d) 45
13. Factors of $\frac{9x^2}{4} + 15xy + 25y^2$ are ____
 (a) $(\frac{3}{2}x + 5y)^2$ (b) $(\frac{3}{2}x + \frac{5}{2}y)^2$ (c) $(\frac{3}{2}x - \frac{5}{2}y)^2$ (d) $(3x + \frac{5}{2}y)^2$
14. Calculate the length of the arc of a circle if the radius is 4.2 cm and the angle at the centre is 60° .
 (a) 2.2cm (b) 3.5cm (c) 4.4cm (d) 8.8cm
15. If the diameter of a truck tyre is 98 cm, then how far does the truck need to travel for the tyre to complete one revolution?
 (a) 250cm (b) 308cm (c) 616cm (d) 154cm
16. The rational expression $\frac{x^2-3x+2}{x^2-1}$ reduces to
 (a) $3x - 2$ (b) $\frac{x+2}{x-1}$ (c) $\frac{x-2}{x+1}$ (d) $3x + 2$
17. The distance of the point $A(6,3)$ from the $X - axis$ is
 (a) 3 (b) 6 (c) $\sqrt{6^2 + 3^2}$ (d) $\sqrt{6^2 - 3^2}$
18. $\frac{5}{12} \left(\frac{8}{15} - \frac{7}{18} \right) = \underline{\hspace{2cm}}$
 (a) $\frac{13}{216}$ (b) $\frac{13}{90}$ (c) $\frac{11}{216}$ (d) $\frac{11}{90}$
19. Which term of the sequence $11n + 32$ is 659?
 (a) 47 (b) 46 (c) 57 (d) 56
20. Assertion: The area of an isosceles trapezium can be calculated using the formula $\sqrt{(s-a)(s-b)(s-c)(s-d)}$ where a, b, c and d are the sides of the trapezium and s is the semi-perimeter.
 Reason: Every Isosceles trapezium is a cyclic quadrilateral.

Section B

Questions number 21 to 25 carry 2 marks each

21. Convert $0.\overline{16}$ in the form of $\frac{p}{q}$.
22. The length of a rectangular playground is 4 m more than twice its breadth. If the perimeter of the playground is 56 m, find its length and breadth.

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23. Represent $\frac{1}{4}$ and $\frac{7}{8}$ on a number line.
24. Find 5 rational numbers between $\frac{2}{7}$ and $\frac{6}{7}$.
25. Without performing division, determine whether the decimal expansion of $\frac{41}{400}$ is terminating or non-terminating. If it terminates, state the number of decimal places.

Section C

Questions number 26 to 31 carry 3 marks each

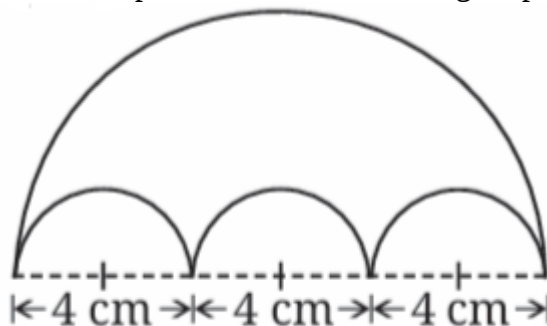
26. Prove that $\sqrt{3}$ is irrational.
27. Expand the following

(i) $\left(\frac{5}{6}x - \frac{3}{10}y\right)^2$
 (ii) $(3x - 5y + 4)^2$

28. Use identity and find the product without multiplying directly

(i) $(98)^2$
 (ii) (47×53)

29. The length of the four sides of a quadrilateral are 8m, 6m, 10m and 12m. If the quadrilateral can be inscribed inside a circle, what is the area (in m^2) of the quadrilateral?
30. A taxi service charges a fixed base fare and an additional cost per kilometer traveled. A passenger observed that for a journey of 12 km, the total fare was Rs. 250. For a journey of 20 km, the total fare was Rs. 370. If the total fare y depends on the distance traveled x (in km) according to the relation $y = ax + b$ find the values of a and b
31. What is the perimeter of the following shape taking arcs to be semi-circles.



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Section D

Questions number 32 to 35 carry 5 marks each

32. Plot the points $A(1, 3)$, $B(4, 3)$, $C(4, 1)$ and $D(1, 1)$ on a graph paper. Is ABCD a rectangle? Can you explain why? What is the area of the rectangle?
33. Given the side of an equilateral triangle is ' a '. Calculate its area using Heron's formula. Hence calculate the area of an equilateral triangle with side 10cm.
34. A telecom company charges 900 for a certain recharge scheme. This prepaid balance is reduced by 25 each day after the recharge.
- (i) Write an equation that models the remaining balance $b(x)$ after using the scheme for x days.
 - (ii) Explain why it represents linear decay.
 - (iii) After how many days will the balance run out?
 - (iv) Make a table of values for x varying from 1 to 7 days and show how the balance $b(x)$, reduces with time.
35. Simplify the following rational expressions assuming that the expressions in the denominators are not equal to zero
- (i) $\frac{x^3-8}{2x^2+x-10}$
 - (ii) $\frac{x^3-3x^2-4x+12}{x^2-5x+6}$

Section E

Question number 36 to 37 carry 6 marks each

36. Aditya is a fitness freak and great athlete. He always wants to make his nation proud by winning medals and prizes in the athletic activities. An upcoming activity for athletes was going to be organised by Railways. Aditya wants to participate in 200 m race. He can currently run that distance in 51 seconds. But he wants to increase his speed, so to do it in 31 seconds. With each day of practice, it takes him 2 seconds less.

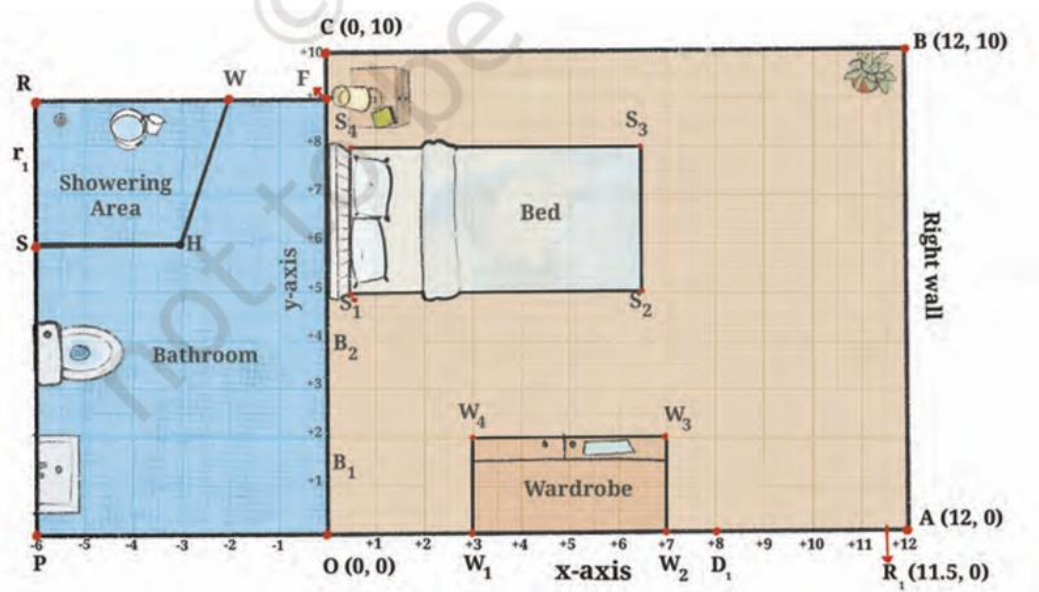


- (i) He wants to make his best time as 31 sec. In how many days will he be able to achieve his target? (2)
- (ii) What will be the difference between the time taken on 5th day and 7th day. (2)
- (ii) Which term of the arithmetic progression 3, 15, 27, 39 will be 120 more than its 21st term? (2)

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37. The figure below shows Esha's room and an attached bathroom. The x- and y-axes are marked in the figure. Point O is the origin.



Answer the following questions based on the above figure.

- What are the coordinates of the four corners O, F, R and P of the bathroom?
- What is the area of the showering area?
- Calculate the distance between the corner (W_4) of the wardrobe to the top right corner (B) of the bedroom?

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