

KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 02 FOR PERIODIC TEST-II (2017-18)

SUBJECT: MATHEMATICS(041)

BLUE PRINT FOR PERIODIC TEST-II: CLASS IX

Chapter	VSA (1 mark)	SA – I (2 marks)	SA – II (3 marks)	LA (4 marks)	Total
Number System	1(1)	--	--	4(1)	5(2)
Polynomials	--	--	3(1)	--	3(1)
Coordinate Geometry	--	--	3(1)	--	3(1)
Linear Equation in two variables	1(1)	2(1)	--	--	3(2)
Introduction to Euclid's Geometry	--	2(1)	--	--	2(1)
Lines and Angles	1(1)	2(1)	--	--	3(2)
Triangles	--	--	3(1)	4(1)	7(2)
Quadrilaterals	1(1)	2(1)	--	4(1)	7(3)
Areas of Parallelograms and triangles	--	--	3(1)	4(1)	7(2)
Total	4(4)	8(4)	12(4)	16(4)	40(16)

MARKING SCHEME FOR PERIODIC TEST-II (2017-18)

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
VSA	1	4	04
SA – I	2	4	08
SA – II	3	4	12
LA	4	4	16
GRAND TOTAL			40

KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 02 FOR PERIODIC TEST-II (2017-18)

SUBJECT: MATHEMATICS
CLASS : IX

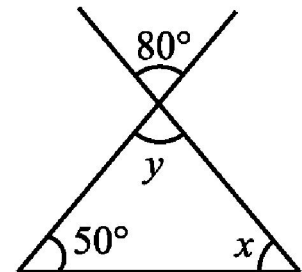
MAX. MARKS : 40
DURATION : 1½ HRS

General Instructions:

- (i). All questions are compulsory.
- (ii). This question paper contains **16** questions divided into four Sections A, B, C and D.
- (iii). **Section A** comprises of 4 questions of **1 mark** each. **Section B** comprises of 4 questions of **2 marks** each. **Section C** comprises of 4 questions of **3 marks** each and **Section D** comprises of 4 questions of **4 marks** each.
- (iv). Use of Calculators is not permitted

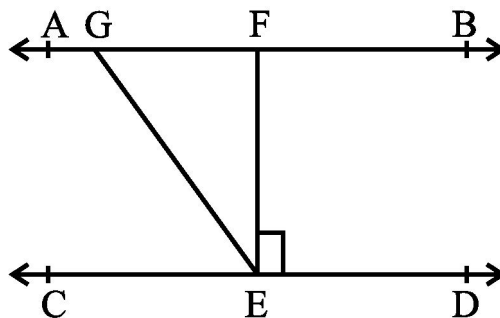
SECTION – A

1. Find the points where the graph of the equation $3x + 4y = 12$ cuts the x -axis and the y -axis.
2. Diagonals of a quadrilateral ABCD bisect each other. If $\angle A = 35^\circ$, determine $\angle B$.
3. Rationalize the denominator : $\frac{7 - 3\sqrt{2}}{7 + 3\sqrt{2}}$
4. Find the value of x and y in the adjacent figure.



SECTION – B

5. Angles of a quadrilateral are in the ratio 3 : 4 : 4 : 7. Find all the angles of the quadrilateral.
6. Solve the equation $2x + 11 = 0$, and represent the solution(s) on (i) the number line, (ii) the Cartesian plane.
7. In below figure, if $AB \parallel CD$, $EF \perp CD$ and $\angle GED = 126^\circ$, find $\angle AGE$, $\angle GEF$ and $\angle FGE$.

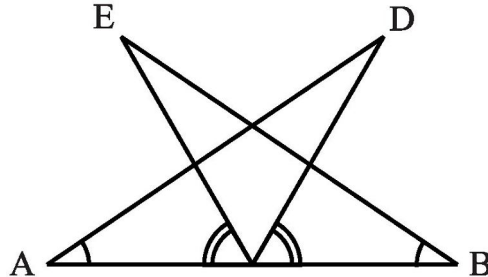


8. If A, B and C are three points on a line, and B lies between A and C (see below fig.), then prove that $AB + BC = AC$.



SECTION – C

9. Factorise: $x^3 - 23x^2 + 142x - 120$
10. Points A (5, 3), B (-2, 3) and D (5, -4) are three vertices of a square ABCD. Plot these points on a graph paper and hence find the coordinates of the vertex C.
11. AB is a line segment and P is its mid-point. D and E are points on the same side of AB such that $\angle BAD = \angle ABE$ and $\angle EPA = \angle DPB$ (see the below figure). Show that (i) $\triangle DAP \cong \triangle EBP$ (ii) $AD = BE$



12. In a triangle ABC, E is the mid-point of median AD. Show that $\text{ar}(\triangle BED) = \frac{1}{4} \text{ar}(\triangle ABC)$

SECTION – D

13. Simplify $\frac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}} + \frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}}$ by rationalizing the denominator.
14. Prove that “If three sides of one triangle are equal to three sides of the other triangle, then the two triangles are congruent”.
15. P, Q, R and S are respectively the mid-points of the sides AB, BC, CD and DA of a quadrilateral ABCD such that $AC \perp BD$. Prove that PQRS is a rectangle.
16. In the below figure, ABCDE is a pentagon. A line through B parallel to AC meets DC produced at F. Show that (i) $\text{ar}(\triangle ACB) = \text{ar}(\triangle ACF)$ (ii) $\text{ar}(\triangle AEDF) = \text{ar}(\text{pentagon } ABCDE)$

