

DIKSHANT INTERNATIONAL SCHOOL  
PERIODIC ASSESSMENT-1(2026-27)  
Grade- IX: MATHEMATICS



M.M:25

Time- 50 minutes

General Instructions:

- All questions are compulsory. There are 12 questions in all.
- This question paper has five sections.
- Section A** - Question numbers 1 to 3 – are multiple choice questions, carrying 1 mark each. Question numbers 4 and 5 are assertion reasoning multiple choice question of 1 mark.
- Section B** - Question numbers 6 to 8 are short answer questions of 2 marks each.
- Section C** - Question numbers 9-10 are short answer questions of 3 marks each.
- Section D** - Question number 11 carries 4 marks.
- Section E** - Question numbers 12 is a case-based question carrying 4 marks.

SECTION- A

Multiple choice Questions-

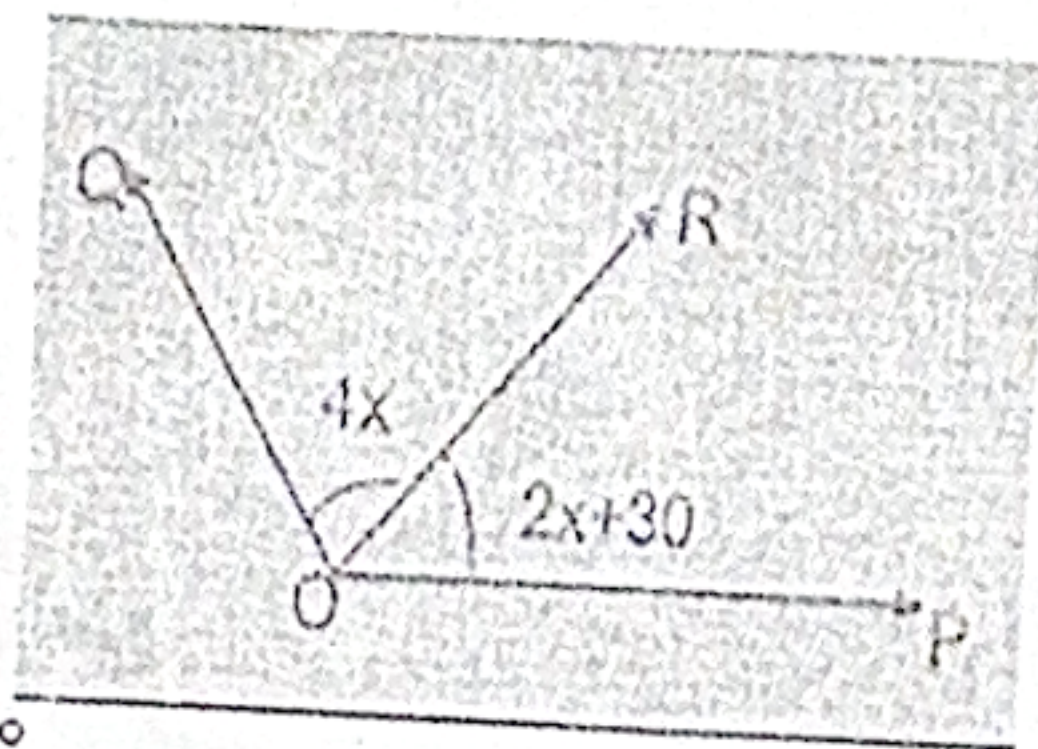
3x1=3

- 1 The value of  $1.999\dots$  in the form  $p/q$ , where  $p$  and  $q$  are integers and  $q \neq 0$ , is:  
(a)  $19/10$  (b)  $1999/1000$  (c)  $2$  (d)  $1/9$

1

- 2 In the given figure, the value of  $x$  which makes POQ a straight line is:

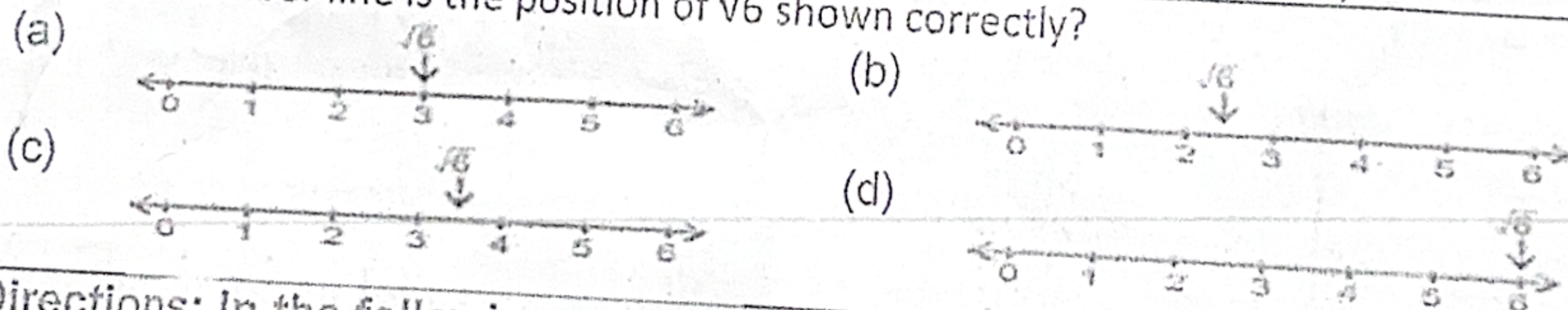
1



- a)  $35^\circ$  b)  $30^\circ$  c)  $25^\circ$  d)  $40^\circ$

- 3 On which number line is the position of  $\sqrt{6}$  shown correctly?

1



Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

2x1=2

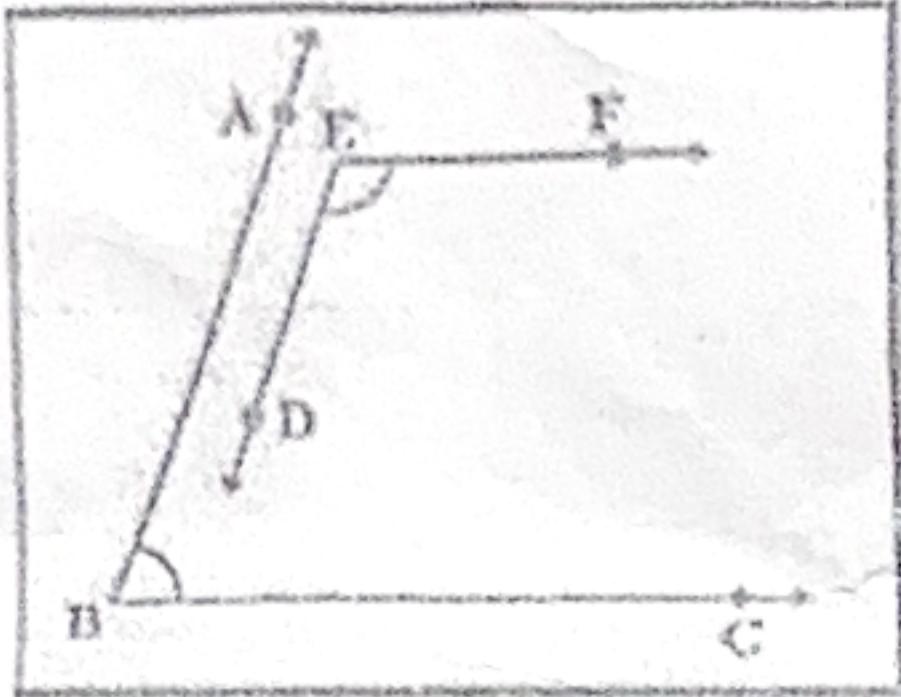
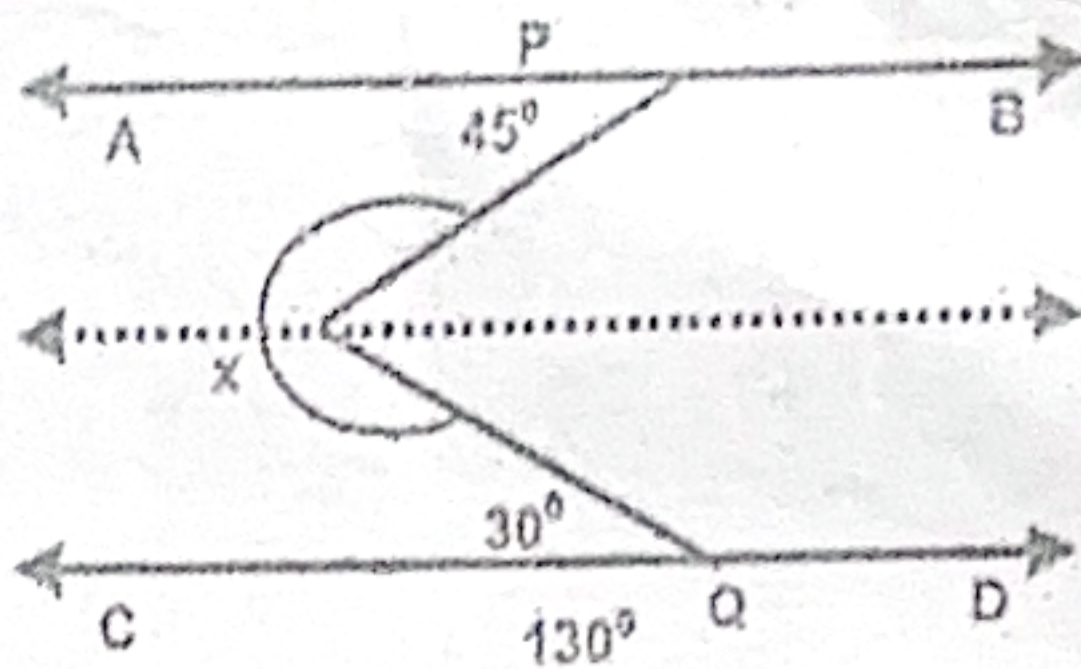
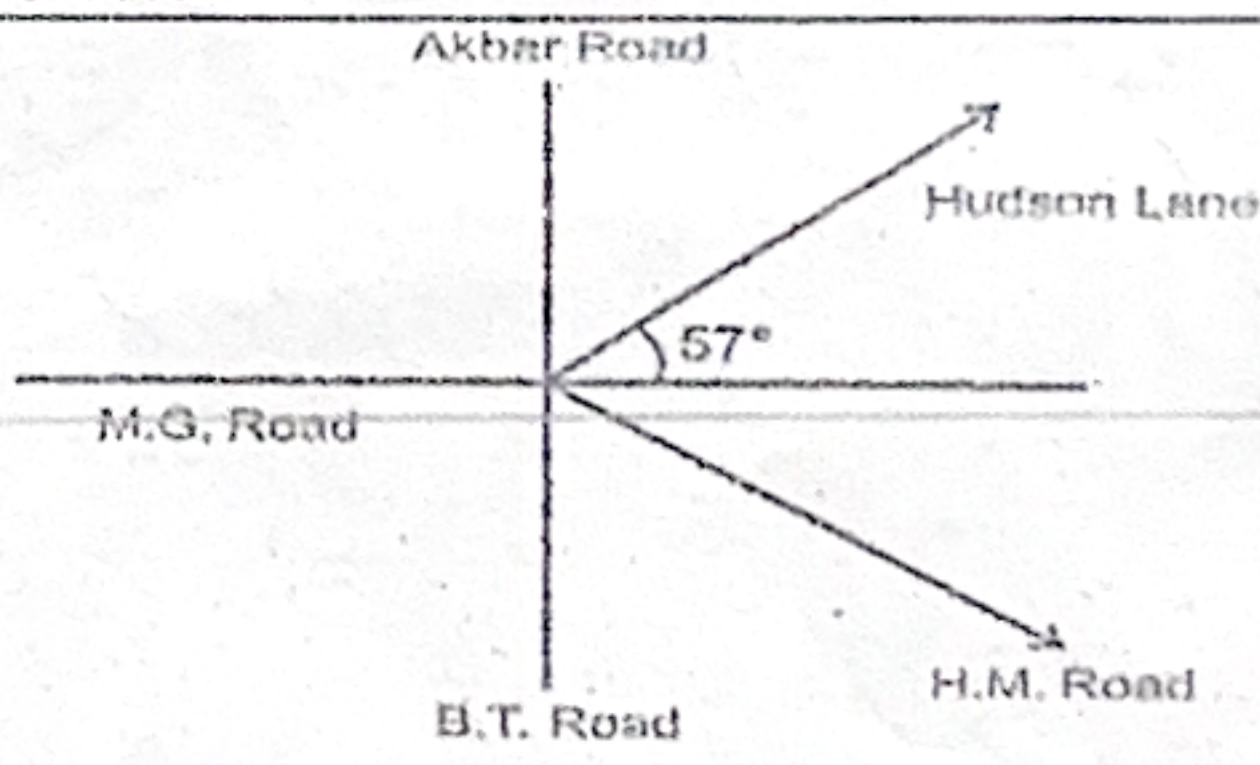
- Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
- Assertion (A) is true but reason (R) is false.
- Assertion (A) is false but reason (R) is true.

4 Assertion (A): If  $\sqrt{2} = 1.414$ ,  $\sqrt{3} = 1.732$ , then  $\sqrt{5} = \sqrt{2} + \sqrt{3}$ .  
Reason (R): Square root of a positive real number always exists.

1

5 Assertion(A) : An angle is  $16^\circ$  more than its complementary angle, then angle is  $53^\circ$ .  
Reason ( R ) : Two angles are said to be complementary if their sum of measure of angle is  $90^\circ$

1

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|     | SECTION -B<br>Very short questions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3x2=6 |
| 6.  | In the given figure, BA    ED and BC    EF. Show that $\angle ABC + \angle DEF = 180^\circ$ .<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2     |
| 7.  | Express 15.7341341..... in the form of $p/q$ , where p and q are integers and $q \neq 0$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2     |
| 8.  | In figure, find the value of x.<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2     |
|     | SECTION -C<br>Short questions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2x3=6 |
| 9.  | Locate $\sqrt{26}$ on number line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3     |
| 10. | If a transversal intersects two lines such that the bisectors of a pair of corresponding angles are parallel, then prove that the two lines are parallel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3     |
|     | SECTION - D<br>Long question:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1x4=4 |
| 11  | If $a=3-2\sqrt{2}$ and $b=1/a$ find value of $a^2 - b^2 + a/b$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4     |
|     | SECTION - E<br>Case study-based question:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4x1=1 |
| 12  | Ritesh and Sheetal are cousins, and both went to visit Mughal Garden. Before going, they searched the location of their destination on a map. During searching, they found on a map that Akbar Road and M.G. roads form a right angle at their intersection point and Hudson Lane forms $57^\circ$ angle with M.G. road. M.G road bisects the angle between Hudson Road and H.M road.<br>Based on the above information answer the following questions.<br>a) What is the measure of acute angle between Akbar Road and Hudson Lane?<br>b) If Ritesh is standing on M.G Road in the west direction and Sheetal is on H.M road, what is the shortest angle they can cover in order to meet?<br>c) Find the measure of reflex angle formed between M.G Road (in east) with Hudson Lane.<br>d) Find the measure of the angle between Hudson Lane and H.M road.<br> | 4     |