

India's Number 1 Education App

MATHS

BOOKS - NAVBODH MATHS (HINGLISH)

COORDINATE GEOMETRY

611 Mark Each

.

1. Distance of point (-3,4) from the origin is

A. 7

B. 1

C. 5

D. 4

Answer: C

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2. Seg AB is parallel to the Y-xais and coordinates of the point A are

(1,3) then coordinates of the point B each can

be _ _ _ _ _ _

A. (3,1)

B. (5,3)

C. (3,0)

D. (1,-3)

Answer: D

3. If P is the midpoint of line segment AB with

A(-4,2) and B(6m2)

then coordinates of the point P are _ _ _ _ _

A. (1,2)

B. (2,1)

C. (2,0)

D. (0,2)

Answer: A



4. The line segment joining the points (-3,-4)

and (1, -2) is

divided by Y-axis in the ratio.

A. 2:3

B. 3:2

C.3:1

D. 1:3`

Answer: C



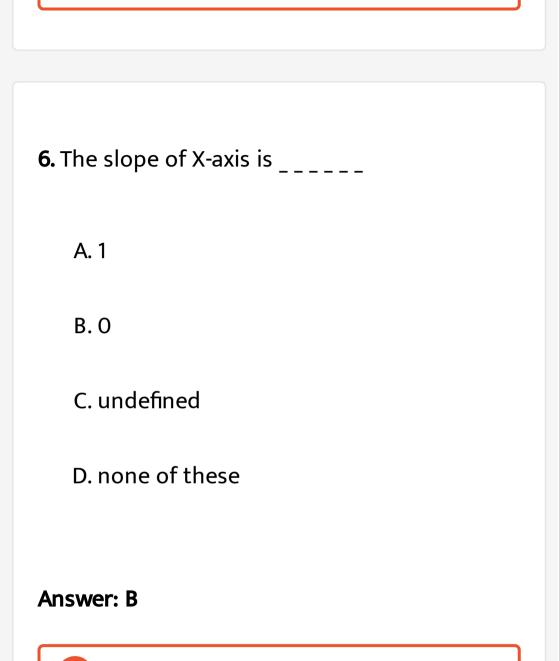
5. If point P(-4,6) divides the line segment AB with A(-6,10) in the ratio 2:1, then coordinates of the point B are

A. (4,3)

- B. (3,-4)
- C. (3,4)
- D. (-3,4)

Answer: D





7. The slope of line joining point P(-1,1) and Q

(5,-7) is _____

A.
$$-rac{4}{3}$$

B. 16

- C. -3
- D. -2

Answer: A

8.	The	distance	between	the	point
P(-1, 1)	and $Q(5,$	— 7) is		
	A. 11				
	B. 10				
	C. 5				
	D. 7				
And	swer: B				

9. A(4, 8), B(5, 5), C(2, 4) and D (1,7) are the

vertices of the parallelogram .

Find the coordinates of the point of intersection of its diagonals .

A. (6,12)

B. (12,6)

C. (3,6)

D. (6,3)

Answer: C





1. If L(5,-8) and M (-7,-3) then the distance

between points

L and M is _____

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2. Write the coodinates of midpoint of the

segment joining (4,5) and (12,15).



3. Write is the slope of the line which makes an

angle of 60° with positive direction of X-axis .

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4. Wrtie the slope of X-axis and Y-axis .

5. Wrtie down the coordinates of centroid of

the triangle whose vertices

(4,7),(8,4) and (7,11).



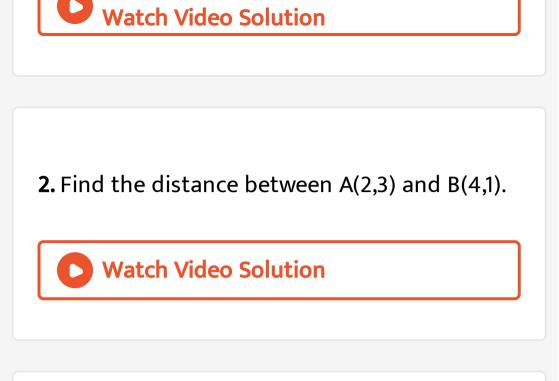
631 Mark Each

1. Determine whether the points A(1, -3), B(2,-5)

and

C(-4,7) are collinear or not .





3. find the coordinates of poiny P, iff P divides

the line segment

joining the point A(-2,7) and B(4,-3) in the ratio

2:3.

4. Find the ratio in which point P (k,7) divides

the segment joining

A(8,9) and B(1,2).



5. Find the coordintes of the midpoint of the

segment joining

P(0,6) and Q (12,20).

6. Find the centroids of the triangles whose

vertices have the

coordinates (-7, 6)(2, -2) and (8,5).

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7. Find k, If B (k, - 5), C (1,2) and slope of the line

is 7.

8. Find the slope of a lline passing through the

point A(3,1) and B (5,3).

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9. Find k, if PQ | | RS and P(2,4), Q (3,6), R (3,1),

S(5,k).

10. If P (-6,-3) and Q (-1, 9), then complete the

following

acitvity to find PQ.



11. The angle made by a line with the positive direction of X-axis is

 $45\,^\circ\,$. Complete the following activity to find

the slope of the line .



12. Complete the table below the graph with the help of the following graph Write your observation from the table .





1. Show that the points (2,0), (-2,0) and (0,2)

are the vertices of

a triangle. Also state with reason the type of

the triangle .



2. Find the point on the X-axis which is

equidistant from (-3,4)

and B(1,-4).

3. Show that the points A(1,2),B(1,6), $C(1+2\sqrt{3},4)$ are the vertices of an equilateral triangle .



4. A(h,-6),B(2,3) and C(-6,k) are the coordinates

of vertices

of a triangle whose centroid is G(1,5). Find h and k.



5. Using slope concept , determine whether R(1,-4), S(-2,2)

and T(-3,4) are collinear or not .



6. Show that the line joining the points A(4,8)

and B(5,5) is parallel

to the line joining the points C(2,4) and D(1,7).

7. Given A(4,-3) ,B (8,5) . Find the coordinates of

the point that

divides segment AB in the ratio 3:1



8. Find the ratio in which point P(6,7) divides

the segment joining

A(8,9) and B(1,2) by completing the following

activity.



9. If the points A(-4, -2) , B (-3,-7) , C(3,-2) and D(2,3) are

joined serially , find the type of quadrilateral

ABCD by completing

the following activity.

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651 Mark Each

1. Find the coordinates of centre of the circle

passing through the

points P(6,-6),Q (3,-7) and R(3,3)



2. Show that points P(2,-2), Q (7,3), R(11,-1) and

S(6,-6)

are vertices of a parallelogram.

3. Find the lengths of the medians of triangle

whose vertices are

A (-1,1), B (5,-3) and C (3,5).

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1. The distance between the point (-6,8) and the origin is _____

B. 10

C. 5

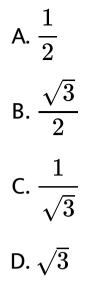
D. 7

Answer: B

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2. A line makes an anlge of 30° with the positive direction of X-axis.

So the slope of the line is _____



Answer: C

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3. If the slope of a line is $\sqrt{3}$, the angle made

by the line with the

positive direction of X-axis is _____

A. $60^{\,\circ}$

B. 30°

C. 45°

D. 90°

Answer: A



4. A(4,7) and B (2,1), P(3,a) is the midpoint of

seg AB, then the value of a is _____

A. 4

B. 8

C. 6

D. 3

Answer: A



5. The sum of the x-coordinates of the vertices

of the triangle is 15 and

that of y-coordinates is 21. The coordinates of

centroid are

A. (15,21)

B. (5,7)

C. (21,15)

D. (7,5)

Answer: B



6. The slope of segment joining the points (2,k) and (-4,2) is $\frac{1}{2}$. Find the value of k.

A. 2

B. 3

C. -4

D. 5

Answer: D



7. If A (1,3),B(-1,2),C(2,5) and D(x,4) the vertices

of $\Box ABCD$

them find the value of x .

A. 0

B. 5

C. 6

D. 7

Answer: A



1. If
$$W\!\left(rac{-7}{2},4
ight)$$
 and X(11,4) then the distance

between points W and X is _____

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2. Write the slope of line passing through P(-3,1) and Q(5-2).

3. Write the coordinates of controid of the

triangle passing through

(3,-5),(4,3) and (11,-4)

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4. What is the slope of the line parallel to X-

axis ?

5. What is the slope of the line perpendicular to X-asis?
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Assignment 63

1. Find the slope of line passing through

L(-2,-3) and M(-6,-8).

2. Find the slope of the line, which makes an angle of 30*o* with the positive direction of yaxis measured anticlockwise.



3. Write the coordinates of controid of the

triangle passing through

(3,-5),(4,3) and (11,-4)

4. If P(-2,-5) and Q(4,3) and point R divides the segment PQ is

the ratio 3:4 then find the coordinates of

points R.

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5. Find x, if distance between L (x,7) and M(1,15)

is 10.

6. Point P is the centre of the circle and AB is a

diameter . Find the

coordinates of point B. If coordinates of point

A and Pare (2,-3)

and (-2,0) respectively.

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7. In which ratio .Y-axis divides the segment joining the points A(5,-6)

and B(-1,-4).



8. Point C lies on a segment joining the points

A(1,1) and B(2,-3)

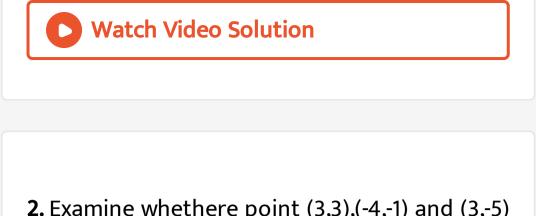
and 3AC = BC . Find the coordinates of point C ,

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Assignment 64

1. Show that point (0,9) is equidistant from

point (-4,1) and (4,1)



2. Examine whethere point (3,3),(-4,-1) and (3,-5)

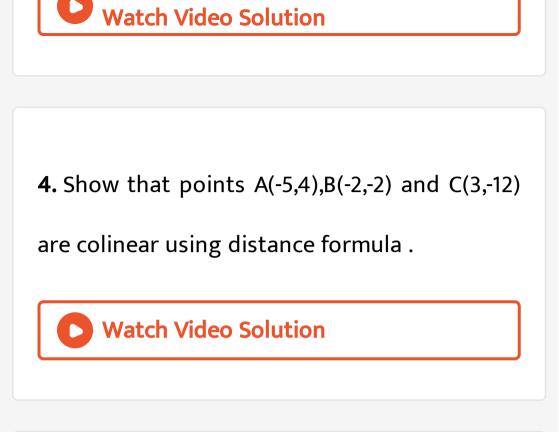
are the

vertices of an isosceles triangle.



3. Using slope concept, show the points P(3,0),Q(6,-2) and R(-3,4) are colinear.





5. Given that A(-3,8) and B(-5,8)

Find the coordinates of midpoint of AB .

6. Given that A(-3,8) and B(-5,8)

State the y-coordinate of point A and B

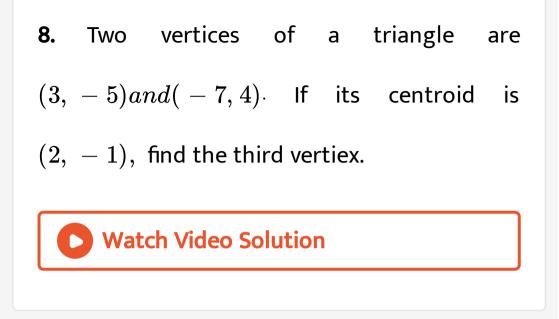
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7. Given that A(-3,8) and B(-5,8)

With your observation from , determine to

which axis will

segment AB be parallel?



9. Find a relation between x and y such that the point (x, y) is equidistant from the points (3, 6) and (-3, 4)

10. Point P divides the line segment joining the

points A(-1,3) and

B(9,8) such that $\displaystyle rac{AP}{BP} = \displaystyle rac{k}{1}$. If P lies on the line

x-y+2=0 , find k .

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11. Do the points joining L(6,4), M(-5,-3) and

N(-6,8) from a

triangle ? Mention the type of triangle so formed.

12. If the points A(-1, -4), B(b, c) and C(5, -1) are collinear and 2b + c = 4 , find the values of b and c .

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13. Verify whether P(-2,2) , Q(2,2) and R(2,7) are

the vertices of a

right angled triangle or not by completing the

following acitvity.

$$PQ = \sqrt{[2 - (-2)]^2 + (2 - 2)^2} = \Box \dots (1)$$
$$QR = \sqrt{(2 - 2)^2 + 97 - 2}^2 = 5 \dots (2)$$
$$PR = \sqrt{[2 - (-2)]^2 + (7 - 2)^2} = \Box \dots (3)$$
from (1),(2),(3)

 $PR^2=\ \square\ , QP^2+QR^2=\ \square$

 $\therefore PR^2 \Box PQ^2 + QR^2 [= \text{ or } \neq]$

 $\therefore \ \bigtriangleup \operatorname{PQR} \Box$ a right angled triangle [is /is

not]

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Assignment 6 5

1. Show that points A (-4, -7), B (-1,2), C (8,5)

and D(5,-4)

are the vertices pf rhomus ABCD.

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2. If A(-14,-10) , B (6,-2) is given . Find the coordinates of points which divide segment AB into four equal points .

3. A (-2,-1) , B (1,0), C (4,3) and D (1,2) are the vertices of

□ ABCD then

Using midpoint formula , find the coordinates

of midponts of join

of A and C .

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4. A (-2,-1) , B (1,0), C (4,3) and D (1,2) are the

vertices of

\Box ABCD then

Using midpoint formula , find the coordinates

of midpoints of

join of B and D.

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5. A (-2,-1) , B (1,0), C (4,3) and D (1,2) are the

vertices of

□ ABCD then

Using midpoint formula , find the coordinates

of midpoints of

join of B and D.

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6. If the points A(6, 1), B(8, 2), C(9, 4)and D(k, p) are the vertices of a parallelogram taken in order, then find the values of k and p.

7. If the point P(x, y) be equidistant from the points A(a + b, b - a) and B(a-b,a+b) , then prove that bx = ay



8. A(4, 2), B(6, 5) and C(1, 4) are the vertices of ABC. The median from A meets BC in D. Find the coordinates of the point D

9. A(4,2), B(6,5) and C(1,4) are the vertices of $\triangle ABC$

Find coordinates of points P on AD such that

AP:PD=2:1.

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10. A(4, 2), B(6, 5) and C(1, 4) are the vertices of ABC. Find the coordinates of the points Q and R on medians BE and CF

respectively such that $BQ{:}QE=2{:}1$ and

CR: RF = 2: 1. What do you observe?



11. A(4,2), B(6,5) and C(1,4) are the vertices of

riangle ABC Using centroid formula , find coordinates of centroid G .

12. Show that the points P(2,1), Q(-1,3), R (-5,-3)

and

S (-2,-5) are the vertices of a square .



13. If (7,-6), (2,k) and (h,18) are the vetices of a

triangle and

P(1,5) is the centroid , then find the values of h

and k.



