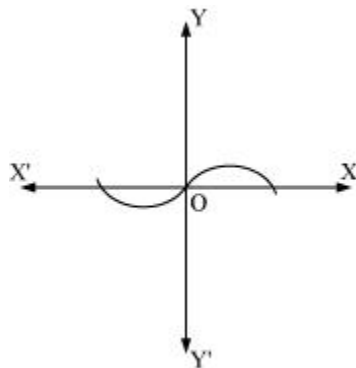


Year 9 Coordinate Geometry Worksheet



1. Find the slope and the y-intercept of the line whose equation is $5x + 6y = 7$.
2. Find the equation of the line that is parallel to $2x + 5y = 7$ and passes through the mid point of the line joining $(2,7)$ and $(-4,1)$
3. (i) Plot $A(2,3)$ and $B(4,5)$ on a graph paper. (ii) Reflect A, B in the y-axis to A', B' . Plot these points on the same graph and (iii) Write down : the geometrical name of the figure $ABB'A'$.
4. Find the number of zeroes of the polynomial $y = f(x)$ whose graph is given in figure.



5. Find the circumcentre of the triangle whose vertices are $(-2, -3), (-1, 0)$ and $(7, -6)$.
 $(3, -3)$
6. Find the equation to the pair of lines passing through $(2, -3)$ and perpendicular to $3x^2 - 2xy - 4y^2 = 0$.
7. A point $P(a,b)$ becomes $(3,c)$ after reflection in x – axis, and $(d,6)$ after reflection in the origin. Show that $a = 3, b = -6, c = 6, d = 2$
8. If the pair of lines $ax^2 + 2pxy - ay^2 = 0, bx^2 + 2qxy - by^2 = 0$ are such that each pair bisects the angle between the other pair, then show that $ab + pq = 0$.
9. Find the equation of the circle concentric with the circle $x^2 + y^2 - 8x + 6y - 5 = 0$ and passes through the point $(-2, -7)$

Year 9 Coordinate Geometry Worksheet



10. If $2my - 3x = 4$ and $3my + 8x = 10$ are perpendicular to each other, prove that $m = \pm 2$