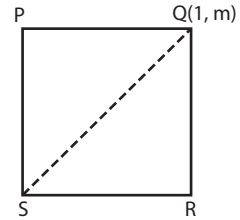
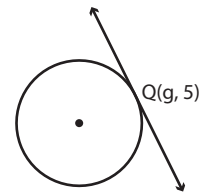


Identifying Unknowns

- 1) PQRS is a square. If Q(1, m) lies on the diagonal \overline{QS} whose equation is $x - y = -6$, then what is the value of m?

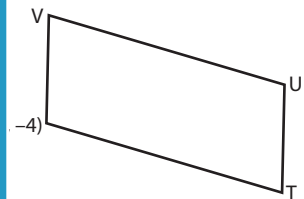


- 2) The equation of a tangent is $2x + y = -3$ which touches the circle at Q(g, 5). What is the value of g?



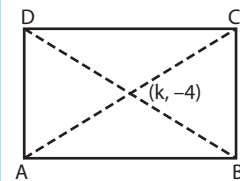
- 3) If S(-7, -4) is a vertex of a parallelogram and the equation of the diagonal \overline{ST} is given by $2x - ay = -42$, then find the value of a.

Equation of the diagonal \overline{ST} is given by



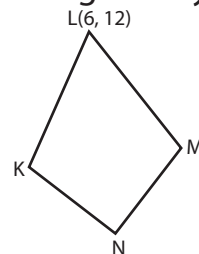
- 4) ABCD is a rectangle with vertices A(0, 0), B(10, 0), C(10, 10) and D(0, 10). The diagonals AC and BD intersect at the point (k, -4). Find the value of k.

Equation of the diagonal \overline{ST} is given by $2x - ay = -42$. If (k, -4) is the intersection of the diagonals, find the value of k.

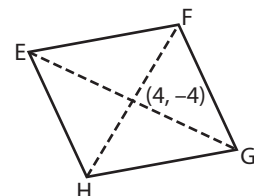


- 5) L(6, 12) is one of the vertices of a rhombus KLMN. If the equation of the diagonal \overline{LN} is given by $-hx + 4y = -6$. Find the value of h.

Equation of the diagonal \overline{LN} is given by $-hx + 4y = -6$. Find the value of h.



- 6) The diagonals of the rhombus meet at (4, -4). Find the value of w if one of the diagonals has the equation $x - wy = -4$.



PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

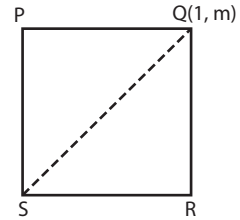
Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com

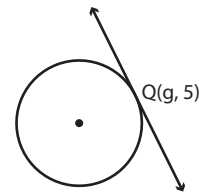
Identifying Unknowns

- 1) PQRS is a square. If Q(1, m) lies on the diagonal \overline{QS} whose equation is $x - y = -6$, then what is the value of m?



 m = 7

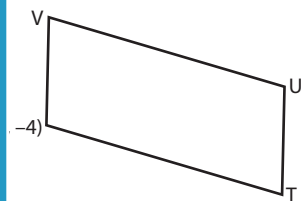
- 2) The equation of a tangent is $2x + y = -3$ which touches the circle at Q(g, 5). What is the value of g?



 g = -4

- 3) If S(-7, -4) is a vertex of a parallelogram and the equation of the diagonal \overline{ST} is given by $2x - ay = -42$, then what is the value of a?

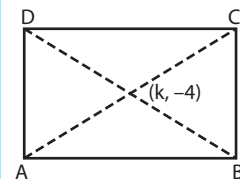
Equation of \overline{ST} is given by



 a = -7

- 4) ABCD is a rectangle with vertices A(0, 0), B(6, 0), C(6, 4), and D(0, 4). The diagonals \overline{AC} and \overline{BD} intersect at point E(k, -4). What is the value of k?

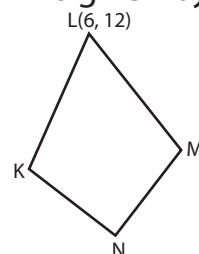
Equation of \overline{AC} is given by $3x + 5y = -2$. If (k, -4) is the intersection point of the diagonals, then



 k = -6

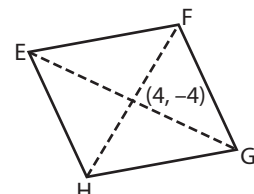
- 5) L(6, 12) is one of the vertices of a rhombus KLMN. The equation of the diagonal \overline{KN} is given by $-hx + 4y = -6$. Find the value of h.

Equation of \overline{KN} is given by



 h = 9

- 6) The diagonals of the rhombus meet at (4, -4). Find the value of w if one of the diagonals has the equation $x - wy = -4$.



 w = -2

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com