

Topic : Coordinate Geometry Proofs - Worksheet 2

- 1. Prove that $A(-9,-7)$, $B(-3,-7)$, $C(-1,-2)$ and $D(-7,-2)$ is a rhombus using midpoints.**
- 2. Prove that $A(-3,-10)$, $B(-2,-4)$, $C(3,-2)$ and $D(2,-8)$ is a rhombus.**
- 3. Prove that $A(-4,6)$, $B(-6,2)$, $C(-1,0)$ are the vertices of a right triangle.**
- 4. Andrew and Thomas see a drawing of quadrilateral ABCD, $A(-5,1)$, $B(-1,4)$, $C(-4,9)$ and $D(-8,6)$. Andrew says the figure is a rhombus, but not a square. Thomas says the figure is a square. Write a proof to show who is making the correct observation.**
- 5. Prove that quadrilateral $A(-2,-8)$, $B(-1,-5)$, $C(2,-3)$ and $D(1,-6)$ is a rhombus by using slopes.**
- 6. Prove that $H(2,1)$, $I(3,6)$, $J(7,6)$ are the vertices of a right triangle.**
- 7. Prove that quadrilateral $L(3,-2)$, $M(-1,2)$, $N(3,6)$ and $O(7,2)$ is a trapezoid.**
- 8. Prove that $I(2,8)$, $J(4,-3)$, $K(10,-3)$ and $L(8,-8)$ is a rhombus using midpoints.**
- 9. Prove that $A(-8,1)$, $B(-7,6)$, $C(-2,3)$ and $D(-3,-2)$ is a rhombus.**
- 10. Prove that $J(2,-1)$, $K(3,8)$, $L(-2,3)$ is an isosceles right triangle.**

