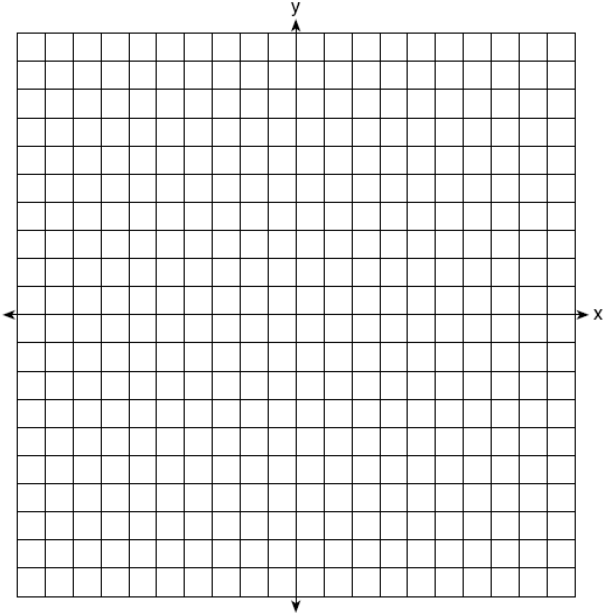


Coordinate Proofs with Quadrilaterals

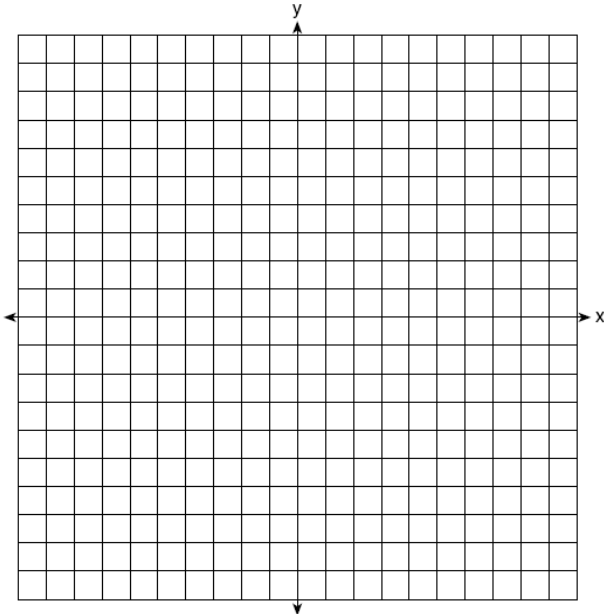
Name _____

Date _____

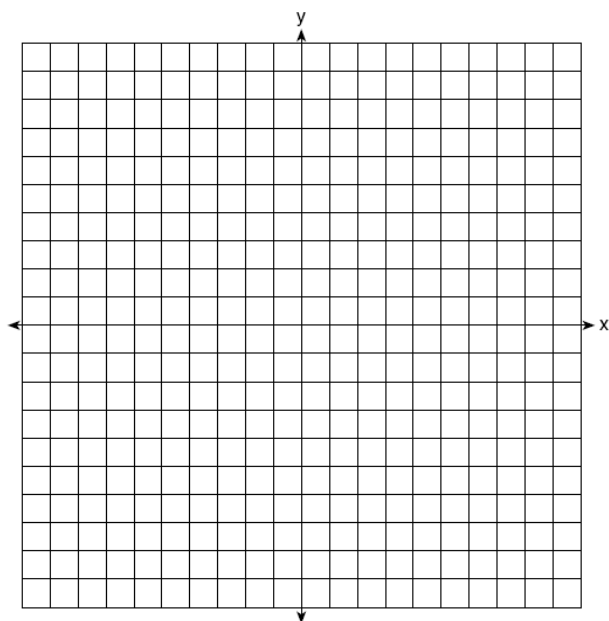
1) Prove that the quadrilateral whose vertices are the points A(-1,1), B(-3,4), C(1,5) and D(3,2) is a parallelogram.



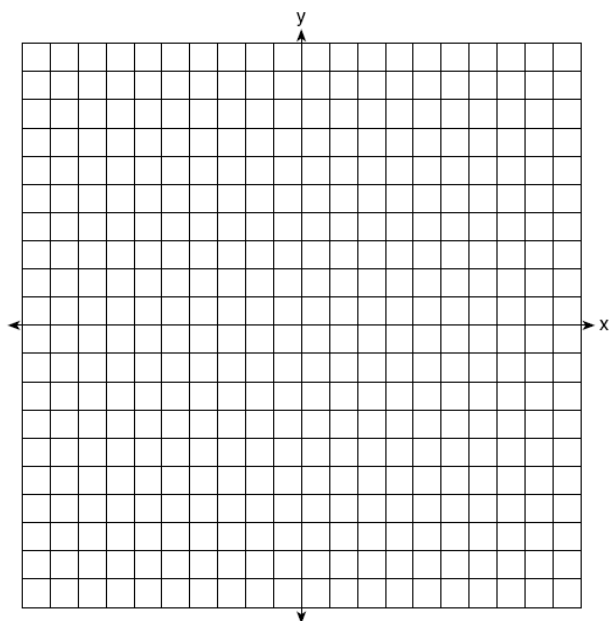
2) Quadrilateral DEFG has vertices at D(3,4), E(8,6), F(9,9) and G(4,7). Prove that DEFG is a parallelogram.



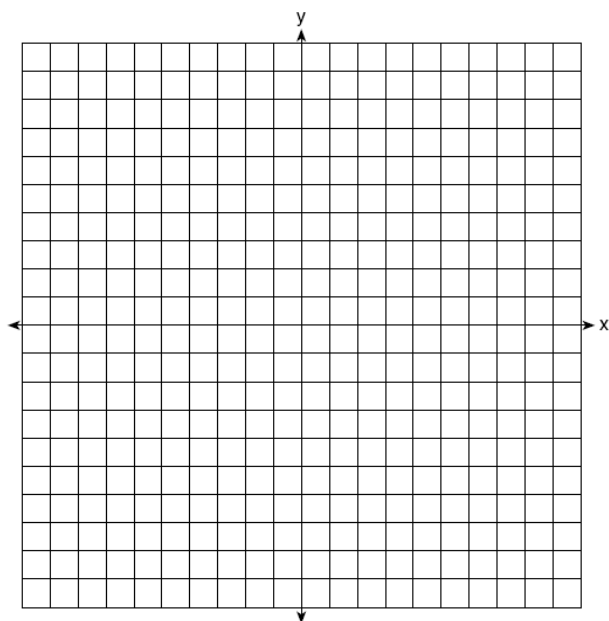
3) Quadrilateral ABCD has vertices $A(2, 3)$, $B(10, 3)$, $C(10, -1)$, and $D(2, -1)$. Prove quadrilateral ABCD is a rectangle



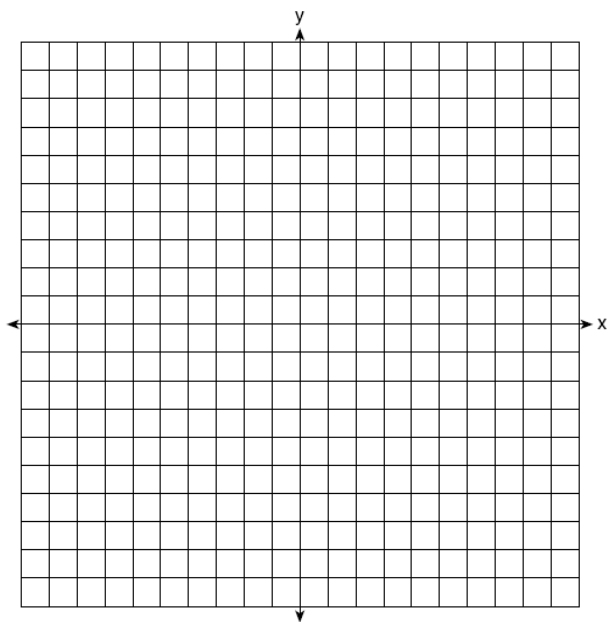
4) The coordinates of the vertices of quadrilateral ABCD are $A(-3,-1)$, $B(6,2)$, $C(5,5)$, and $D(-4, 2)$. Prove that quadrilateral ABCD is a rectangle.



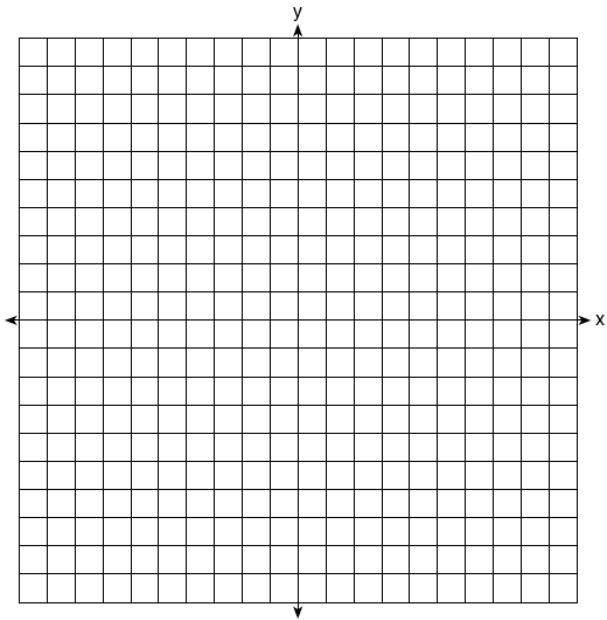
5) Quadrilateral QRST has vertices $Q(6, 7)$, $R(11, 7)$, $S(8, 3)$, $T(3, 3)$. Prove quadrilateral QRST is a rhombus



6) Quadrilateral RHOM has vertices $R(-3,2)$, $H(2,4)$, $O(0,-1)$, and $M(-5,-3)$. Using coordinate geometry, prove that RHOM is a rhombus.



7) The coordinates of the vertices of quadrilateral ABCD are $A(4,1)$, $B(1,5)$, $C(-3,2)$ and $D(0,-2)$. Prove the quadrilateral is a square.



8) Quadrilateral EFGH has vertices $E(-7, 0)$, $F(-2, 0)$, $G(-2, -5)$, and $H(-7, -5)$. Prove quadrilateral EFGH is a square.

