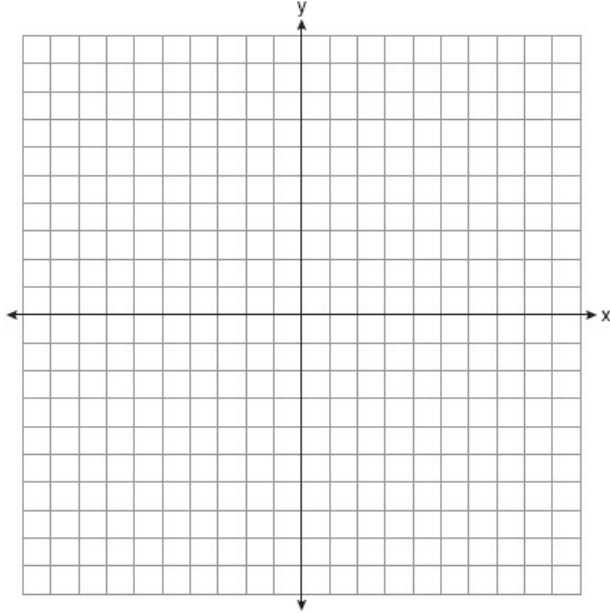


Name _____
Mr. Schlansky

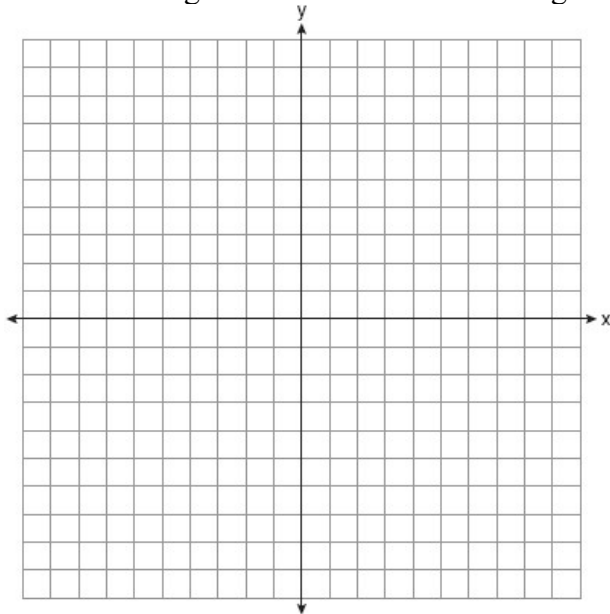
Date _____
Geometry

Coordinate Geometry Proofs Practice

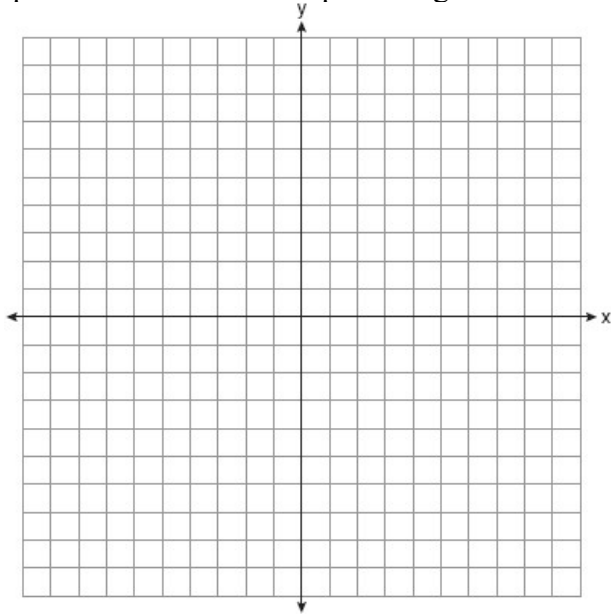
1. Rhombus PAUL has vertices $P(2,6)$, $A(6,8)$, $U(10,6)$, and $L(6,4)$. Using coordinate geometry, prove that PAUL is a rhombus but not a square.



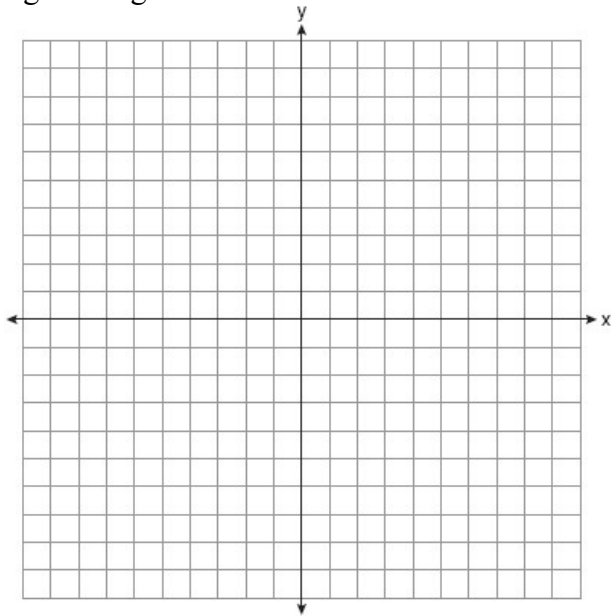
2. Triangle USA has vertices $U(4,-7)$, $S(-3,-4)$, and $A(7,0)$. Prove that triangle USA is an isosceles triangle. Determine whether triangle USA is a right triangle.



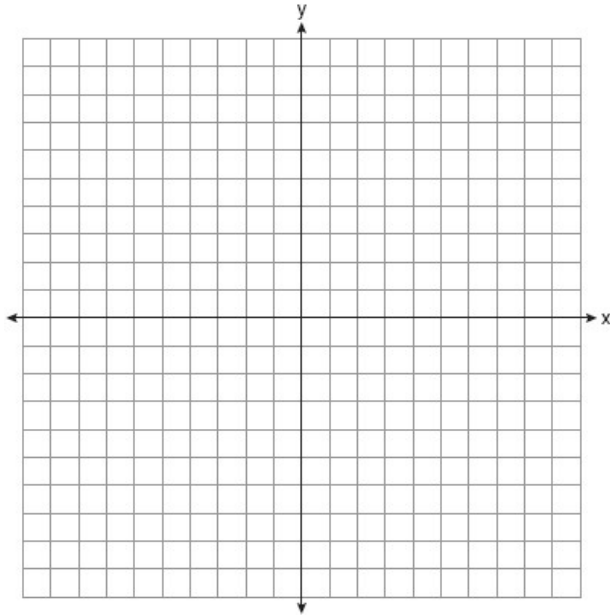
3. The coordinates of quadrilateral ABCD are $A(-3,-8)$, $B(6,-1)$, $C(9,10)$, and $D(0,3)$. Prove that quadrilateral ABCD is a parallelogram but *not* a rectangle.



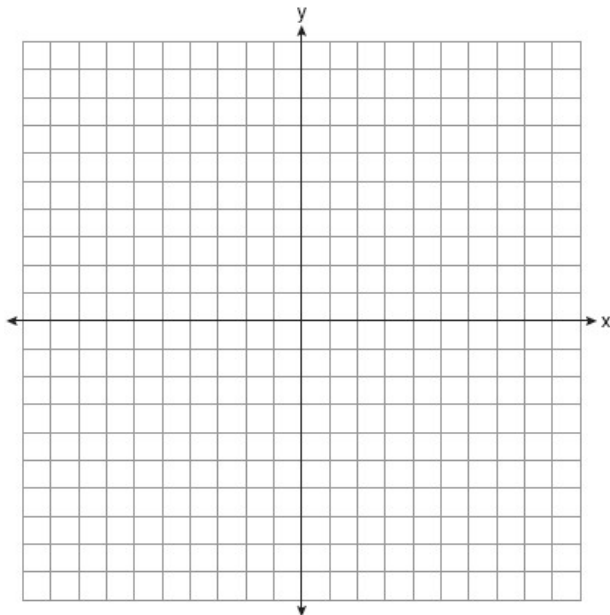
4. Triangle ABC has vertices $A(1,1)$, $B(2,5)$, and $C(6,4)$. Prove that triangle ABC is an isosceles right triangle.



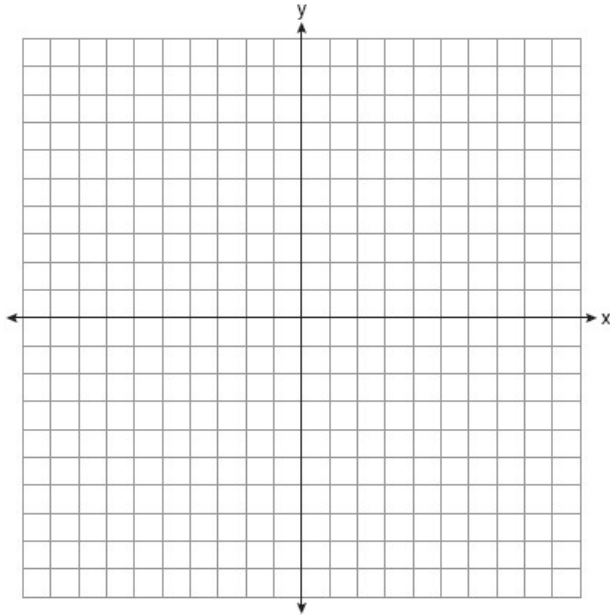
5. Quadrilateral $PQRS$ has vertices $P(-2, 3)$, $Q(3, 8)$, $R(4, 1)$, and $S(-1, -4)$. Prove that $PQRS$ is a rhombus. Prove that $PQRS$ is *not* a square.



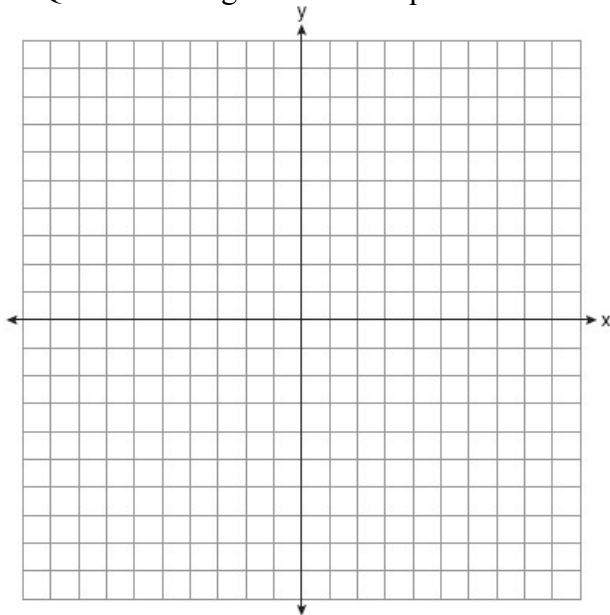
6. Quadrilateral $ABCD$ has vertices $A(3,1)$, $B(-3,5)$, $C(5,4)$ and $D(2,6)$. Prove quadrilateral $ABCD$ is a trapezoid but *not* an isosceles trapezoid.



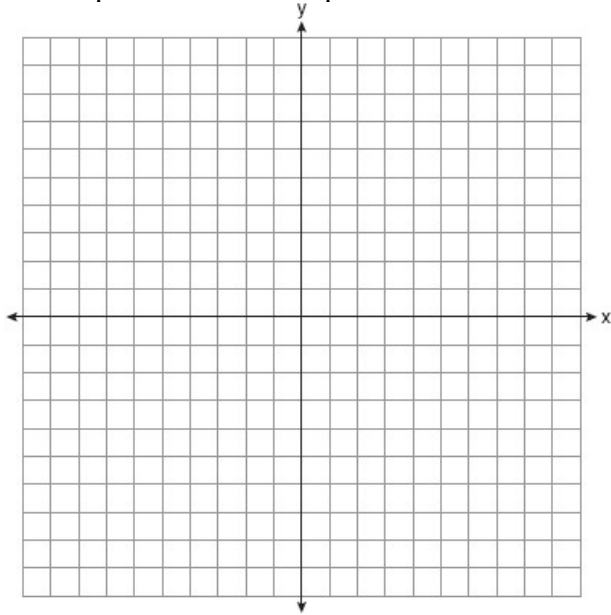
7. The coordinate of quadrilateral TACO are $T(-4,0)$, $A(-3,3)$, $C(2,2)$, and $O(1,-1)$. Prove that TACO is a parallelogram but not a rhombus.



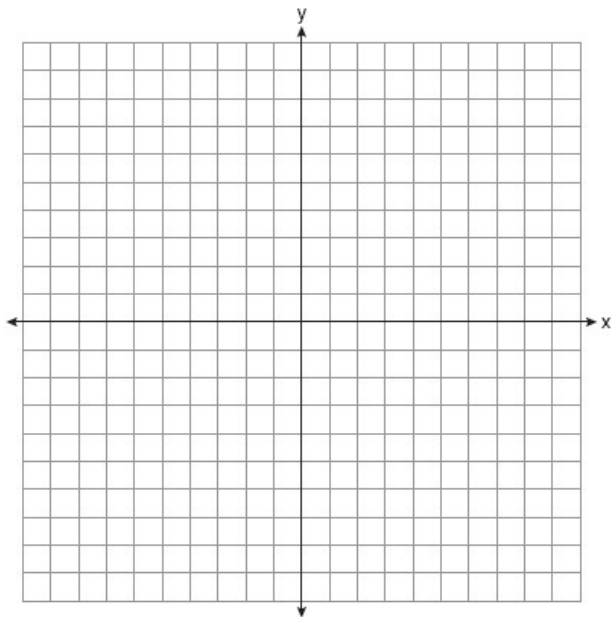
8. Quadrilateral JAQC has vertices $J(2,-4)$, $A(8,0)$, $C(0,-1)$, and $Q(6,3)$. Prove that quadrilateral JAQC is a rectangle but not a square.



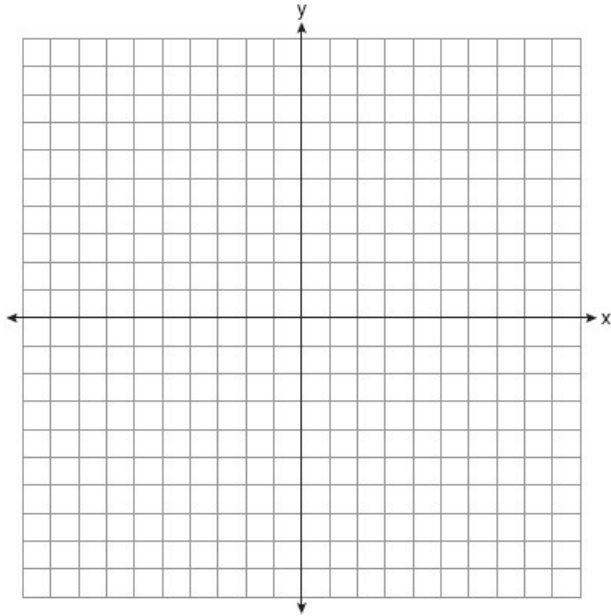
9. Quad YNKS has vertices $Y(3,0)$ $N(6,-4)$ $K(10,-1)$ $S(7,3)$.
Prove quad YNKS is a square



10. Triangle MET has vertices $M(-8,-2)$, $E(-6,4)$, and $T(-3,3)$. Prove that triangle MET is a right triangle.



11. Quadrilateral TOBY has vertices $T(-4, -8)$, $O(5, -1)$, $B(8, 10)$ and $Y(-1, 3)$. Using coordinate geometry, prove that quadrilateral TOBY is a rhombus but not a square.



12. Quadrilateral JUAN has vertices $J(-4, -1)$, $U(-1, 4)$, $A(4, 1)$, and $N(1, -4)$. Prove JUAN is a square. Prove Triangle UJN is a right triangle.

