MPM 2D1 Name: _____

Classifying Shapes

1. Show that the line segment joining the P(1,4) and Q(5,5) is parallel to the line joining points R(3,-4) and S(7,-3).

2. Show that the line joining T(-1,7) and U(3,5) is perpendicular to the line joining V(-4,1) and W(-1,7).

3. The sides of quadrilateral ABCD have the following slopes. What types of quadrilateral could ABCD be? What other information is needed to determine the exact type of quadrilateral?

Side	AB	BC	CD	AD
Slope	-5	$-\frac{1}{7}$	-5	$-\frac{1}{7}$

4. A triangle has vertices at L(-7,0), M(2,1) and N(-3,5). Verify that it is a right isosceles triangle.

5. A shape is defined by the R(-5,1), S(5,3), T(2,-1) and U(-8,-3). Show that it is a parallelogram.

6. The vertices of ABCD are A(0,-3), B(-9,0), C(-5,6), and D(4,0). Show that ABCD is not a rectangle.