

Name: _____ Date: _____ Period: _____ Score: _____

Unit 8 Day 6 Elbow Grease Assignment



In the following problems, determine the type of quadrilateral, given the four coordinates. Make a rough sketch, then decide which properties to test and calculate them using the midpoint, slope or distance formulas. Remember, you don't need to calculate all the information, only as much as you need. Cross off each quadrilateral as you eliminate it, until you narrow it down to one possibility. **MAKE SURE TO SHOW YOUR WORK AND THE MATH YOU USED TO SUPPORT YOUR STATEMENTS.** [3 points each]

Slope formula: $\frac{y_2 - y_1}{x_2 - x_1}$ Midpoint: $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$ Distance: $\sqrt{((x_2 - x_1)^2 + (y_2 - y_1)^2)}$

1. Quadrilateral ZANE: Z (2, 5), A (-4, 5), N (-4, -7), E (2, -7)

Slopes of sides:

Slopes of diagonals:

Midpoints of diagonals:

Lengths of sides:

parallelogram rectangle rhombus square trapezoid isosc trap kite

2. Quadrilateral ALEX: A (-4, 12), L (-10, 4), E (-4, -2), X (10, -2)

Slopes of sides:

Slopes of diagonals:

Midpoints of diagonals:

Lengths of sides:

parallelogram rectangle rhombus square trapezoid isosc trap kite

Everyone can learn!

3. Quadrilateral MADI: M (-1, 3), A (13, 9), D (16, 2), I (2, -4)

Slopes of sides:

Slopes of diagonals:

Midpoints of diagonals:

Lengths of sides:

parallelogram

rectangle

rhombus

square

trapezoid

isosc trap

kite

4. Quadrilateral KATY: K (-3, 6), A (0, 9), T (3,6), Y (0, -10)

Slopes of sides:

Slopes of diagonals:

Midpoints of diagonals:

Lengths of sides:

parallelogram

rectangle

rhombus

square

trapezoid

isosc trap

kite

5. Quadrilateral SEAN: S (-5, 6), E (-4, -2), A (4, -1), N (3, 7)

Slopes of sides:

Slopes of diagonals:

Midpoints of diagonals:

Lengths of sides:

parallelogram

rectangle

rhombus

square

trapezoid

isosc trap

kite