

Classifying Quadrilaterals

All of the following information was found using the coordinates of the vertices of a quadrilateral. Use this information to classify each quadrilateral as a:

Square...Rectangle...Rhombus...Trapezoid...Isosceles Trapezoid...Kite...Parallelogram...or a Quadrilateral

1) Classify quadrilateral *BEAR*, where:

BEAR is a _____

$$\text{Slope of } \overline{BE} = \frac{1}{3}$$

$$\text{Length of } \overline{BE} = \sqrt{10}$$

$$\text{Slope of } \overline{EA} = -3$$

$$\text{Length of } \overline{EA} = \sqrt{10}$$

$$\text{Slope of } \overline{AR} = \frac{1}{3}$$

$$\text{Length of } \overline{AR} = \sqrt{10}$$

$$\text{Slope of } \overline{BR} = -3$$

$$\text{Length of } \overline{BR} = \sqrt{10}$$

2) Classify quadrilateral *OHMY*, where:

OHMY is a _____

$$\text{Slope of } \overline{OH} = -\frac{1}{3}$$

$$\text{Length of } \overline{OH} = \sqrt{10}$$

$$\text{Slope of } \overline{HM} = -3$$

$$\text{Length of } \overline{HM} = 2\sqrt{10}$$

$$\text{Slope of } \overline{MY} = -\frac{1}{3}$$

$$\text{Length of } \overline{MY} = \sqrt{10}$$

$$\text{Slope of } \overline{OY} = -3$$

$$\text{Length of } \overline{OY} = 2\sqrt{10}$$

3) Classify quadrilateral *WZRD*, where:

WZRD is a _____

$$\text{Slope of } \overline{WZ} = 0$$

$$\text{Length of } \overline{WZ} = 5$$

$$\text{Slope of } \overline{ZR} = -\frac{4}{3}$$

$$\text{Length of } \overline{ZR} = 5$$

$$\text{Slope of } \overline{RD} = 0$$

$$\text{Length of } \overline{RD} = 5$$

$$\text{Slope of } \overline{WD} = -\frac{4}{3}$$

$$\text{Length of } \overline{WD} = 5$$

4) Classify quadrilateral *POND*, where:

POND is a _____

$$\text{Slope of } \overline{PO} = \frac{1}{4}$$

$$\text{Length of } \overline{PO} = \sqrt{17}$$

$$\text{Slope of } \overline{ND} = \frac{6}{7}$$

$$\text{Length of } \overline{ND} = \sqrt{85}$$

$$\text{Slope of } \overline{ON} = -4$$

$$\text{Length of } \overline{ON} = \sqrt{17}$$

$$\text{Slope of } \overline{DP} = \frac{9}{2}$$

$$\text{Length of } \overline{DP} = \sqrt{85}$$