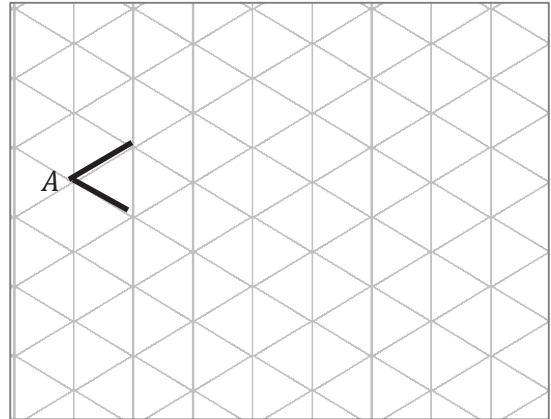


Name _____

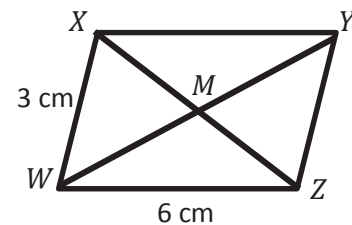
Date _____

1. $\angle A$ measures 60° .

- a. Extend the rays of $\angle A$, and draw parallelogram $ABCD$ on the grid paper.
- b. What are the measures of $\angle B$, $\angle C$, and $\angle D$?

2. $WXYZ$ is a parallelogram not drawn to scale.

- a. Using what you know about parallelograms, give the measure of sides XY and YZ .
- b. $\angle WXY = 113^\circ$. Use what you know about angles in a parallelogram to find the measure of the other angles.



$\angle XYZ = \underline{\hspace{2cm}}^\circ$

$\angle YZW = \underline{\hspace{2cm}}^\circ$

$\angle ZWX = \underline{\hspace{2cm}}^\circ$

3. Jack measured some segments in Problem 2. He found that $\overline{WY} = 8$ cm and $\overline{MZ} = 3$ cm.

Give the lengths of the following segments:

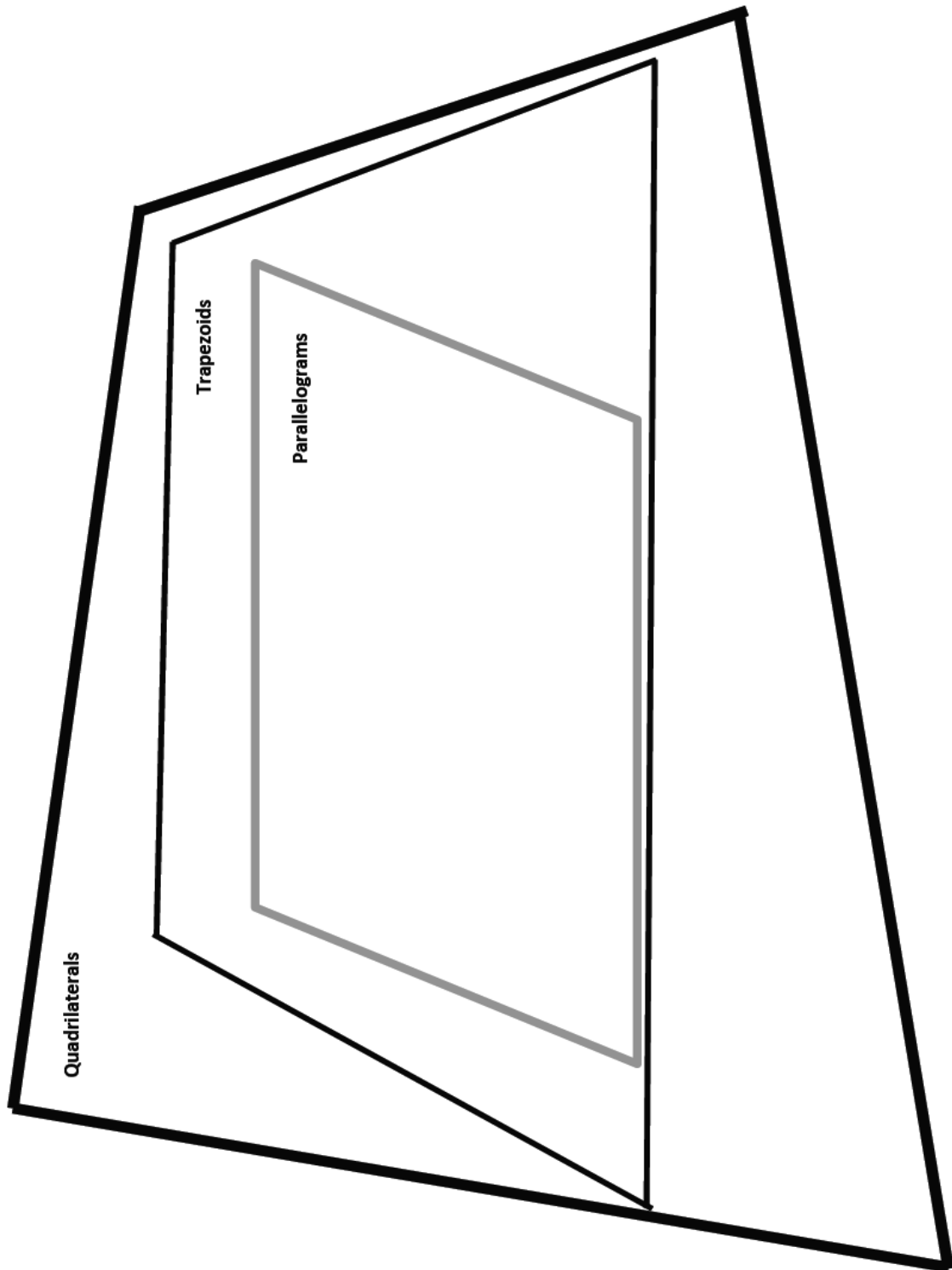
$WM = \underline{\hspace{2cm}}$ cm

$MY = \underline{\hspace{2cm}}$ cm

$XM = \underline{\hspace{2cm}}$ cm

$XZ = \underline{\hspace{2cm}}$ cm

4. Using the properties of shapes, explain why all parallelograms are trapezoids.
5. Teresa says that because the diagonals of a parallelogram bisect each other, if one diagonal is 4.2 cm, the other diagonal must be half that length. Use words and pictures to explain Teresa's error.



quadrilateral hierarchy with parallelogram