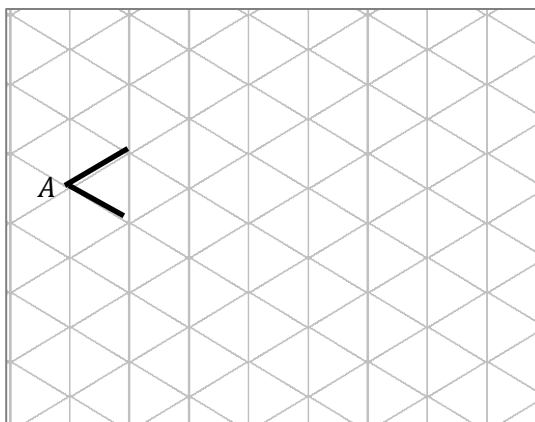


Name \_\_\_\_\_

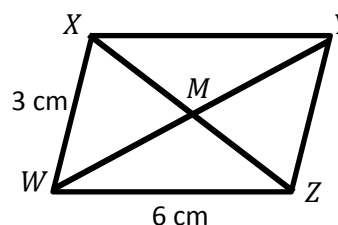
Date \_\_\_\_\_

1.  $\angle A$  measures  $60^\circ$ .
- 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:

$$WM = \underline{\hspace{2cm}} \text{ cm} \qquad MY = \underline{\hspace{2cm}} \text{ cm}$$

$$XM = \underline{\hspace{2cm}} \text{ cm} \qquad XZ = \underline{\hspace{2cm}} \text{ cm}$$

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.