

nim: \_\_\_\_\_

san: \_\_\_\_\_

## ----- Plankhouse Construction -----

**Directions:** On your graph sheet, you have half of a plankhouse. Follow the instructions below to help the Tribe construct the rest of their plankhouse.

1. Reflect each circle point across the  $y$ -axis so that you construct the other half of the plankhouse. Make sure it looks exactly like the half that they have already built. Draw this on the graph paper.

2. Give the coordinates of the new points from the top of the house to the bottom.

Tip of the Roof : \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Where the Roof Meets the Wall : \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Right Tip of the Roof: \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Bottom Right Corner: \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Middle Point: \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

3. The house you just helped build is the home for one family. Another family in the band needs help building their home as well. The star point you are given on the graph is the tip of the roof. The family needs to build this new home so that it is exactly the same size as their other home. Using your graph paper, help them construct this new home.

4. Give the coordinates of the new family's home.

Tip of the Roof : \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Where the Roof Meets the Wall : \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ ) \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Outer Tips of the Roof: \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ ) \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )

Bottom Corners: \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ ) \_\_\_\_\_ ( \_\_\_\_\_ , \_\_\_\_\_ )



5. What type of movement did the original plankhouse go through to create the new plankhouse?

**Rotation**

**Translation**

**Reflection**

Why?

6. The family in the second home must tell others how to come to their new home. Below, describe the movement that others would have to go through to travel from the first plankhouse to the second? (One line on the graph is equal to one mile)

7. If you were to build this house in real life, what types of materials would be used?

8. Based on what you learned today, would the families stay in these homes forever? Even through the warmer months?