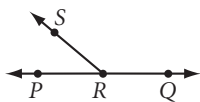


Investigation 1 • The Linear Pair Conjecture

Name _____ Period _____ Date _____

You will need: a protractor



Step 1 Draw \overleftrightarrow{PQ} and place a point R between P and Q . Choose another point S not on \overleftrightarrow{PQ} and draw \overrightarrow{RS} . You have just created a linear pair of angles. Place the “zero edge” of your protractor along \overleftrightarrow{PQ} . What do you notice about the sum of the measures of the linear pair of angles?

Step 2 Compare your results with those of your group. Does everyone make the same observation? Complete the statement.

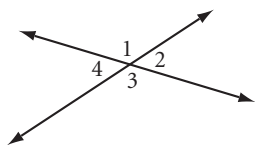
Linear Pair Conjecture

If two angles form a linear pair, then _____.

Investigation 2 • Vertical Angles Conjecture

Name _____ Period _____ Date _____

You will need: a straightedge, patty paper



Step 1 Draw two intersecting lines onto patty paper or tracing paper. Label the angles as shown. Which angles are vertical angles?

Step 2 Fold the paper so that the vertical angles lie over each other. What do you notice about their measures?

Step 3 Fold the paper so that the other pair of vertical angles lie over each other. What do you notice about their measures?

Step 4 Compare your results with the results of others. Complete the statement.

Vertical Angles Conjecture

If two angles are vertical angles, then _____.