**Activity 3.2.6 Design a Triangle**

Group members:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Take turns choosing the length of a side or the measure of an angle of ∆*ABC* Then other members of the group must decide whether a triangle with the given measurements is possible or impossible. Keep track of which parts have been chosen in the column on the right.

1. First student’s choice:
 \_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Possible or impossible?
Explain:

2. Next student’s choice:
 \_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Possible or impossible?
Explain:

3. Next student’s choice:
 \_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Possible or impossible?
Explain:

4. Next student’s choice:
 \_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Possible or impossible?
Explain:

5. Next student’s choice:
 \_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Possible or impossible?
Explain:

6. Next student’s choice:
 \_\_\_\_\_\_ = \_\_\_\_\_\_\_\_

Possible or impossible?
Explain:



m$∠A$ = \_\_\_\_\_\_\_\_\_\_\_\_

m$∠B$ = \_\_\_\_\_\_\_\_\_\_\_\_

m$∠C$ = \_\_\_\_\_\_\_\_\_\_\_\_

*AB* = \_\_\_\_\_\_\_\_\_\_\_\_

*BC* = \_\_\_\_\_\_\_\_\_\_\_\_

*CA* = \_\_\_\_\_\_\_\_\_\_\_\_