**Dinner Party!**

Creating your Dining Room Layout

To prepare for your dinner party, you are to design a living room to seat your assigned number of guests. One stipulation – **you may not have any empty seats!**

**To complete your project you must:**

1. Decide a shape for your tables that will seat your assigned number of guests with no seats leftover.
2. Provide the linear function that describes your seating arrangement, and prove that it works.
   1. If you have a large number of guests, consider having more than one row of tables. Then, you can multiply your expression by the number of rows you have!

Example:

**1 row of tables:**

**2 rows of tables:**

**If you have two rows of tables, your function would be multiplied by 2!**

1. Show all work in proving that your function seats the appropriate number of people.
2. Provide a written explanation of how you determined the function for your dining room arrangement.
3. Design your dining room, using Geogebra! Your design must include the actual seating arrangement. Add color and décor to your design!
4. Complete the four forms template for your function. Make sure all axes are labeled and work is precise and detailed.