

Linear Inequality Word Problems

For each problem write the inequality and sketch the graph.

1. Ronald is determining the seating arrangement for his big graduation party. Circular tables can seat 11 guests and rectangular tables can seat 6 guests. Together, they must seat at least 61 guests.

x = the number of circular tables

and y = the number of rectangular tables

2. A jewelry designer is making beaded jewelry with the 999 beads she currently has in stock. Bracelets use 31 beads and necklaces use 51 beads.

x = the number of bracelets

y = the number of necklaces

3. Ross is assembling centerpieces that use candles. A small centerpiece uses 1 candle and a large centerpiece uses 5 candles. Ross is limited to using 93 candles.

x = the number of small centerpieces

y = the number of large centerpieces

4. The length of a rectangle must be at least 3 less than twice the width.

The perimeter can be no more than 93 cm.

If x = the width and y = the length