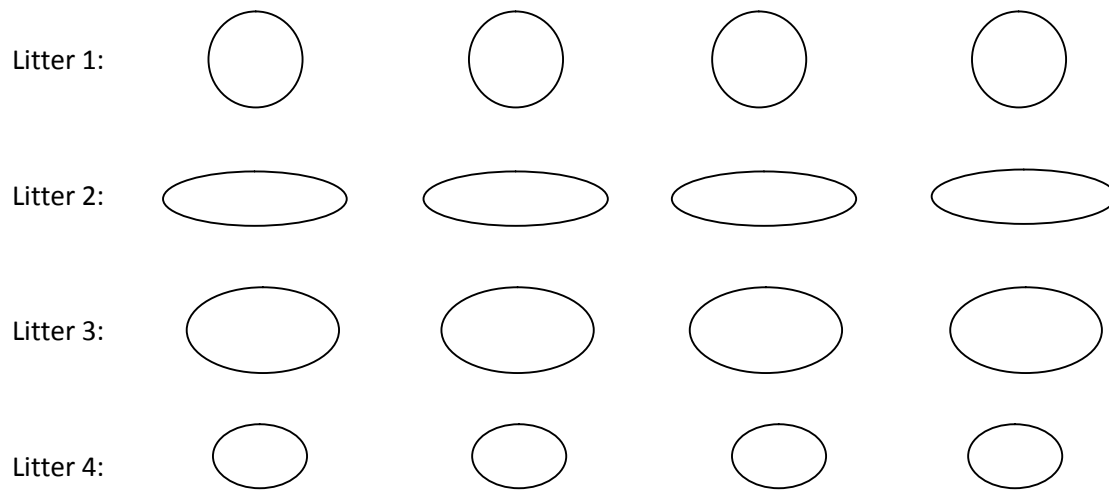


### Practice Problem: Analysis of the RCB Design

An animal scientist wishes to see the effects of Diet (1, 2, 3, 4) on the average daily weight gain (ADB) of baby pigs. The experimenter has 16 piglets for the study. They come from 4 litters with 4 piglets chosen from each litter. It is expected that litter will affect weight gain. A diagram with the ovals depicting the piglets is shown below.



- Show a randomization for a randomized complete block design where litter is the block. Write the treatments in the ovals.
- Give the degrees of freedom for diets, litter and error.
- The text file "Piglet data" has data for this study. Analyze the data using SAS and interpret the results.
- Analyze the same data as a one-way ANOVA with diet as the only factor. Compare the results to those in part c. Would you say that including litter as a blocking factor is a good idea in this case?