

Determine the number of **experimental units** in the following scenarios.

a. A researcher has 10 cages into which he places 5 mice per cage. He places diet A into half of the cages and diet B into the remaining cages. He measures the change in respiration rate of mice fed on each diet.

b. A biologist identifies 30 small oak trees in the field. She randomly chooses to assign either an ant exclusion or ant inclusion treatment to each tree. She determines the number of herbivorous insects on trees 3 days after the treatment.

c. A researcher marks 20 plots in the field. She divides each plot in two and clips off 50% of the wiregrass leaves in one of the halves. After one week, she determines the growth response of wiregrass to clipping.

Answers:

- a. 10 units. The treatment is diet and this is applied to each cage, therefore, the cages become the expt'l units.*
- b. 30 units. Each tree receives a different treatment and so tree is our unit.*
- c. 40 units. Each plot is divided and the halves receive treatments independently, therefore, half-plots are the units.*