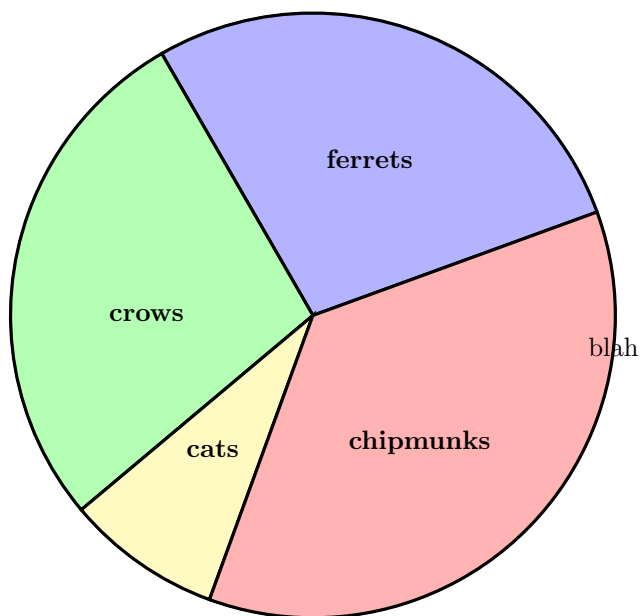


## Pie Graph

*Prepared by Alex Katsenelenbogen*



The above graph shows the breakdown of pet ownership in Rockville. (It does look like folks have *unusual* taste.) In any case, The breakdown is as follows:

- 500 pets were counted
- Chipmunks make up 180 pets.
- Crows make up 145 pets.
- Cats make up 50 pets.
- Ferrets make up the rest.

## Problems

1. For each of pet, calculate the degree measure in both radians and degrees of the corresponding circle sector.
2. If the radius of the above pie graph is 4 cm, calculate the area of each sector.

3. If the radius of the above pie graph is instead 3 cm, calculate the arc length for each sector.
4. Verify that for the above questions, the calculated areas and arc lengths add up to the total area and total circumference respectively.