MATH 120 Class Prep
Day 5

Complete the following items before class and bring your work to class. Your instructor will be checking for completion and effort. You may work with other students on this activity. You are responsible for your understanding of the ideas you present as your own work.

Answer the following questions. Leave answers involving factorials and $P(n,k)$ in those terms.

You are heading to the animal shelter to choose a pet. The shelter has 15 cats and 24 dogs available.

1. In how many ways can you bring home one cat or one dog?   (Videos 2.1A and 2.1B)

2. In how many ways can you bring home one cat and one dog?   (Videos 2.1C and 2.1D)

3. How many different orderings are there for **all** the cats to be adopted?   (Video 2.1E)

4. In how many ways can you line up **four** of the dogs in a parade?   (Video 2.1E)