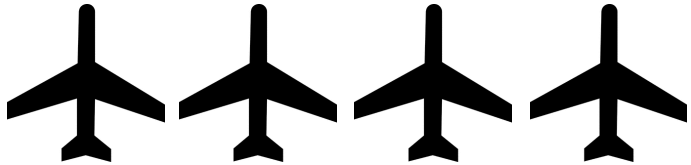
Hiring Discrimination?

An airline has just finished training 25 junior pilots—15 male and 10 female—to become captains. Unfortunately, only eight captain positions are available right now. Airline managers announce that they will use a lottery process to determine which pilots will fill the available positions. The names of all 25 pilots will be written on identical slips of paper, placed in a hat, mixed thoroughly, and drawn out one at a time until all eight captains have been identified.



A day later, managers announce the results of the lottery. Of the 8 captains chosen, 5 are female and only 3 are male. Some of the male pilots who were not selected suspect that the lottery was not carried out fairly. One of these pilots asks your class about whether to file a grievance with the pilots' union.

[Source: *The Practice of Statistics*]

Think.

Could these results have happened purely by chance? Explain your thinking.

Show.

1. Make sure you have 15 male cards and 10 female cards. Mix them up and put them in your container.
2. Have one partner hold the container where the other partner cannot see the contents. Draw eight cards and record the number of females chosen.
3. Switch jobs and repeat until you have recorded the results of five trials.

Trial	1	2	3	4	5
# Females					

4. Create a dot plot on the right using the data collected by you and your classmates.

Tell.

Could these results have happened purely by chance? Explain your thinking .

Class Data.

Calculations.