

Your Name: \_\_\_\_\_

Names of people you worked with: \_\_\_\_\_

**Task:**

1. Which door did you use to enter Estella today (north, south, or west)?
2. Which is easier to understand: shuffling the observations or bootstrapping the observations?
3. Consider the following two datasets. For each one, create 5 different bootstrap samples by rolling a die. For dataset A, calculate the sample mean for each bootstrap sample. For dataset B, calculate the sample proportion of happy for each bootstrap sample.

**Data A:** 4, 10, 8, 1, 2, 4

**Data B:** happy, happy, sad, happy, sad, happy

**Solution:**

3. **Data A:** Five possible bootstrap samples are as given.

#	resamples						mean
1:	2	4	4	4	4	2	3.33
2:	1	2	2	1	8	8	3.67
3:	1	4	2	10	2	10	4.83
4:	2	8	4	8	4	4	5.0
5:	2	2	1	4	2	2	2.17

**Data B:** Five possible bootstrap samples are as given.

#	resamples						proportion happy
1	happy	happy	happy	happy	happy	happy	1.0
2	sad	happy	sad	happy	sad	happy	0.5
3	sad	happy	happy	happy	happy	happy	0.83
4	happy	sad	sad	happy	happy	sad	0.5
5	happy	sad	sad	happy	happy	sad	0.5