

Worksheet 5 - Bootstrap samples

Wednesday, February 4, 2026

Math 58B - Jo Hardin

Name: _____

Names of people you worked with: _____

What is your favorite item to buy at the Coop Store?

Task:

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:**Data A:** Five possible bootstrap resamples are as given:

Resample #	1	2	3	4	5	6	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	5.00
5	2	2	1	4	2	2	2.17

Data B: Five possible bootstrap resamples are as given:

Resample #	1	2	3	4	5	6	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