

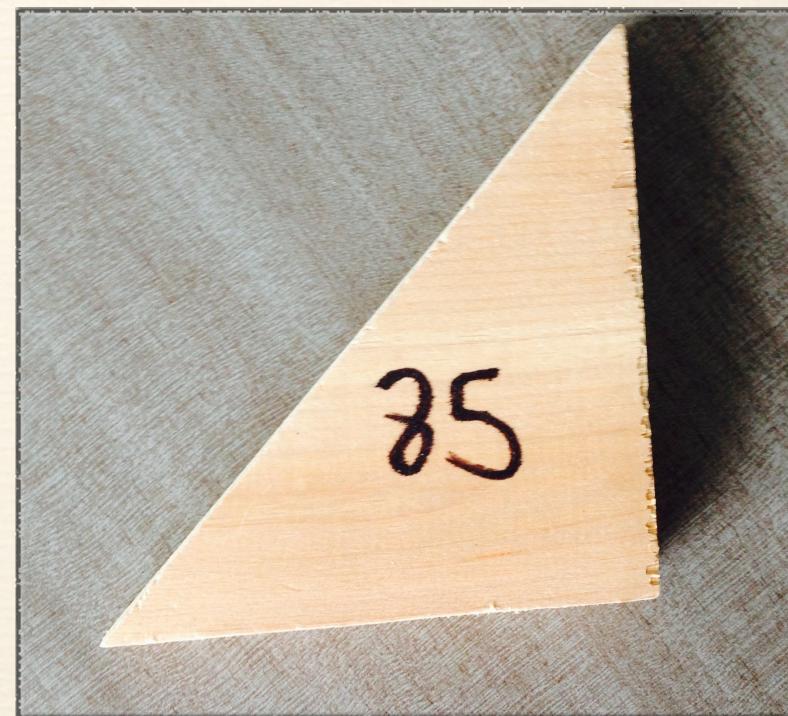
The Block Experiment



Comparing Sampling Methods

The Setup

- ❖ A set of 100 wooden blocks.
- ❖ The attribute of interest is the average weight of the 100 blocks.
- ❖ We also will have the perimeter for each block.



Two Sampling Methods

- ❖ Judgement Sampling
- ❖ Simple Random Sampling

Judgement Sampling

- ❖ Select ten blocks that are representative of the population.

Simple Random Sample

- ❖ Select ten blocks using Simple random sampling without replacement (SRSWOR)
- ❖ In R using the command sample
- ❖ `>sample(1:100, 10)`

Block Weights

1	77		21	38		41	23		61	77		81	57
2	42		22	16		42	34		62	33		82	74
3	44		23	39		43	58		63	24		83	33
4	33		24	47		44	103		64	26		84	27
5	62		25	36		45	29		65	28		85	43
6	34		26	76		46	27		66	86		86	28
7	22		27	91		47	25		67	73		87	22
8	86		28	23		48	51		68	64		88	42
9	29		29	38		49	57		69	47		89	22
10	45		30	75		50	49		70	85		90	29
11	72		31	79		51	43		71	65		91	57
12	47		32	51		52	27		72	33		92	33
13	60		33	48		53	45		73	62		93	65
14	50		34	29		54	47		74	49		94	67
15	69		35	16		55	97		75	36		95	51
16	121		36	26		56	64		76	25		96	27
17	47		37	88		57	63		77	27		97	46
18	61		38	25		58	35		78	71		98	43
19	29		39	26		59	48		79	21		99	23
20	51		40	98		60	35		80	26		100	41