The Jelly Blubber Sampling Design Activity

Convenience Sample – Select 5 Jelly Blubbers that are easy to collect, whichever ones are easiest to find on the sheet. Record the lengths of your five Blubbers and find the mean.

_____   _____   _____   _____   _____ $\bar{x}$ = _____

Judgmental Sample – Select 5 Jelly Blubbers that, in your judgment, are representative of the population on this sheet. Record the lengths of your five Blubbers and find the mean.

_____   _____   _____   _____   _____ $\bar{x}$ = _____

Simple Random Sample - Generate five random integers between 1 & 100. Locate the corresponding Jelly Blubbers and record their lengths. Find the mean.

_____   _____   _____   _____   _____ $\bar{x}$ = _____

Stratified Sample - Suppose one shakes the Jelly Blubbers, causing the larger ones to sink and the smaller ones to rise. The result is the sheet of stratified Blubbers, where the sizes are divided into 5 strata. Choose one Blubber at random from each stratum by generating a random integer. Locate the Blubbers & record their lengths. Find the mean.

_____   _____   _____   _____   _____ $\bar{x}$ = _____

Systematic Sample - A system is used to select the sample. Use the original page of Blubbers and select five Blubbers. Generate a random integer between 1 & 20. This is the first Blubber. Then add 20 to each previous number to find the other four Blubbers. Record their lengths and find the mean.

_____   _____   _____   _____   _____ $\bar{x}$ = _____

Cluster Sample - Cluster samples select whole groups or clusters of individuals (usually based on location). Generate a random integer (r) between 1 & 20 and multiply by 5. Your sample will be that number (5r) and the four numbers preceding it. (Example: r = 12, 5r = 60, so sample is 60, 59, 58, 57, 56) Record the lengths of the Blubbers and find the mean.

_____   _____   _____   _____   _____ $\bar{x}$ = _____

On the back of this paper summarize the technique for each of the types of samples (in your own words to be used generically with any desired sample) and explain both their advantages and disadvantages.

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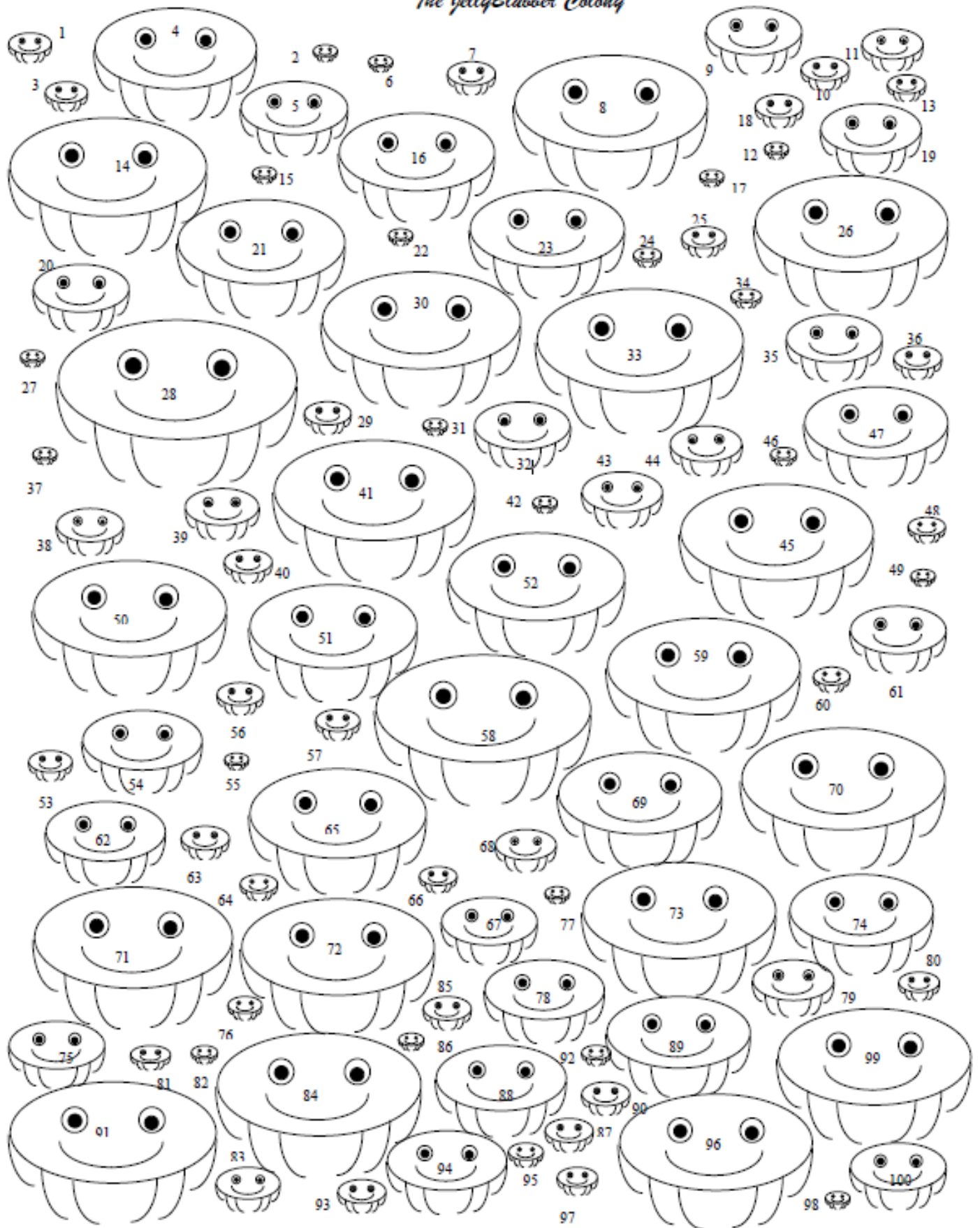
Blubber #	Length		Blubber #	Length
1	9		51	35
2	5		52	37
3	9		53	9
4	33		54	25
5	22		55	5
6	5		56	10
7	10		57	9
8	40		58	45
9	20		59	40
10	10		60	8
11	12		61	20
12	5		62	25
13	8		63	10
14	41		64	8
15	5		65	37
16	32		66	8
17	5		67	20
18	10		68	13
19	21		69	34
20	20		70	42
21	34		71	40
22	5		72	40
23	32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