Section 2.1 — Frequency Distributions

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Frequency Distributions

- Construct a frequency distribution

Definition (Distribution)

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A frequency distribution shows how data are partitioned among several categories (or classes) by listing the categories along with the number (frequency) of data values in each of them.

Definition (Class Limits)

Class limits are the smallest and largest numbers that can belong to the classes. Class midpoints are the values in the middle of each class.

More definitions

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Definition (Class width)
Class width is the difference between two consecutive lower class limits.

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4. Determine the frequency of each class.

Oscar Winners

Table 1: Ages of Oscar Winner for Best Actress

21	22	22	24	24	25	25	25	25	26	26	26	26	26	26
27	27	27	27	28	28	28	28	28	29	29	29	29	29	29
29	29	30	30	30	31	31	31	32	32	32	32	33	33	33
33	33	33	34	34	34	35	35	35	35	35	36	36	37	37
38	38	38	38	39	39	40	41	41	41	41	41	42	42	44
45	45	48	49	49	54	54	60	61	61	61	62	63	74	80

Other Frequency Distribution

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Definition (Cumulative Frequency Distribution)

A cumulative frequency distribution is one in which the frequency for each class is the sum of all previous classes.

Thinking about Data

List of weights

Last digit of weight	Frequency
0	46
1	1
2	2
3	3
4	3
5	30
6	4
7	0
8	8
9	3

Weights of pennies

Weight of pennies (g)	Frequency
2.40-2.49	18
2.50-2.59	19
2.60-2.69	19
2.70-2.79	0
2.80-2.89	0
2.90-2.99	2
3.00-3.09	25
3.10-3.19	8