

### ## Food for thought 1

Melanie, a researcher at FDA, is interested in how people in California give ratings to the taste of ranch pizza. She collected 20 people in Los Angeles and made a frequency table on the frequency of pizza ratings (1 through 5).

Ratings	Frequency (Freq.)	Cumulative Freq.	Relative Percent	Cumulative Percent (from top to bottom)
1	3	3	$\frac{3}{3+2+5+6+4} = \frac{3}{20} = \frac{15}{100} = 0.15 = 15\%$	15% (=0.15)
2	2	3 + 2 = 5	$\frac{2}{3+2+5+6+4} = \frac{2}{20} = \frac{10}{100} = 0.1 = 10\%$	15% + 10% = 25% (=0.25)
3	5	3 + 2 + 5 = 10	$\frac{5}{3+2+5+6+4} = \frac{5}{20} = \frac{25}{100} = 0.25 = 25\%$	15% + 10% + 25% = 50% (=0.5)
4	6	3 + 2 + 5 + 6 = 16	$\frac{6}{3+2+5+6+4} = \frac{6}{20} = \frac{30}{100} = 0.3 = 30\%$	15% + 10% + 25% + 30% = 80% (=0.8)
5	4	3 + 2 + 5 + 6 + 4 = 20	$\frac{4}{3+2+5+6+4} = \frac{4}{20} = \frac{20}{100} = 0.2 = 20\%$	15% + 10% + 25% + 30% + 20% = 100% (=1)

- Can you fill in the blanks of cumulative freq., relative percent, and cumulative percent?

Done.

- What is the cumulative percent for giving 2 stars or lower?

15% + 10% = 25%. 25% is equivalent to 0.25.

---

### ## Food for thought 2

Itamar has been working as a data scientist at Marvel Studios. Since Spider-Man: No Way Home is on the screen, she wants to know how people rate the movie. She made a questionnaire on which score you want to give to the movie. The score ranges from 0 to 100 on a 5-point scale. So far, she has collected responses from 19 people, which is summarized in the following table:

Scores	65	70	75	80	85	90	95	100
Frequency	1	1	1	2	3	2	4	5

- How does the distribution look like? Normally distributed, negatively skewed, or positively skewed? Is it unimodal or bimodal?

The distribution is negatively skewed. Also, it is unimodal. See the following histogram.

