

Modeling Benchmark Percents and Fractions

For each scenario described below, choose **at least one** of the four bar models to represent it and fill in all the information you can.

- 1) 80 people were surveyed. 25% of them said that spring was their favorite season.



Use the model you chose to fill in the information in the table below:

| | Number of people | Fraction of people | Percent of people |
|---------------------------------|------------------|--------------------|-------------------|
| People who prefer spring | | | |
| People who do not prefer spring | | | |
| Total | | | |

- 2) Out of 60 people surveyed, 45 of them said they watch more than three hours of tv each day.



Use the model you chose to fill in the information in the table below:

| | Number of people | Fraction of people | Percent of people |
|---|------------------|--------------------|-------------------|
| People who watch more than 3 hours of tv | | | |
| People who do not watch more than 3 hours of tv | | | |
| Total | | | |

- 3) Half of the people surveyed said they are happy in their jobs. 35 people said they are happy.



Use the model you chose to fill in the information in the table below:

| | Number of people | Fraction of people | Percent of people |
|--|------------------|--------------------|-------------------|
| People who said they are happy in their jobs | | | |
| People who did not say they are happy in their jobs. | | | |
| Total | | | |

- 4) A job training program accepted 80% of the people who applied. 40 people were accepted.



Use the model you chose to fill in the information in the table below:

| | Number of people | Fraction of people | Percent of people |
|---|------------------|--------------------|-------------------|
| People who were accepted into the program | | | |
| People who were not accepted into the program | | | |
| Total | | | |

- 5) Your goal is to take 10,000 steps in a day. Yesterday you reached only 60% of that.



Use the model you chose to fill in the information in the table below:

| | Number of steps | Fraction of steps | Percent of steps |
|--|-----------------|-------------------|------------------|
| Steps you took yesterday | | | |
| Steps by which you fell short of your goal | | | |
| Total | | | |

- 6) You also try to take 250 steps every hour. So far this hour, you have taken 100 steps.



Use the model you chose to fill in the information in the table below:

| | Number of steps | Fraction of steps | Percent of steps |
|--|-----------------|-------------------|------------------|
| Steps you have taken so far this hour | | | |
| Steps you still need to take to make your goal | | | |
| Total | | | |

- 7) In a survey, 75% of people said they prefer streaming video to cable. 180 people said they preferred streaming video.



Use the model you chose to fill in the information in the table below:

| | Number of people | Fraction of people | Percent of people |
|--|------------------|--------------------|-------------------|
| People who prefer streaming video | | | |
| People who do not prefer streaming video | | | |
| Total | | | |

- 8) 144 out of 160 people surveyed said they check their phones at least five times every hour.



Use the model you chose to fill in the information in the table below:

| | Number of people | Fraction of people | Percent of people |
|---|------------------|--------------------|-------------------|
| People who check their phones at least five times every hour | | | |
| People who do not check their phones at least five times every hour | | | |
| Total | | | |

Challenge scenarios:

Create a model and a table for each of these scenarios.

- 1) 80% of the people who signed up for a yoga class showed up. 3 people didn't show.
- 2) A teacher reported that her class had 75% attendance on Monday. 3 students were absent that day.
- 3) 15 of the 60 children on a field trip forgot to pack a lunch.
- 4) 65% of 160 people surveyed said they eat breakfast every day.