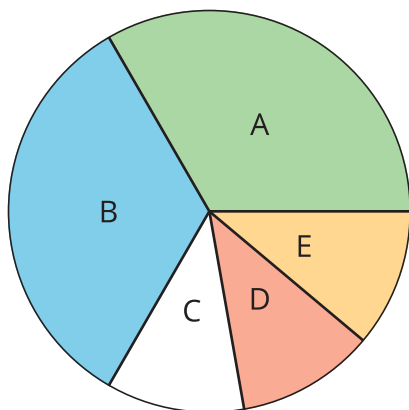


Associations and Relative Frequency Tables

Let's explore relative frequency tables.

3.1 Estimate: Graph Percentage

What percentage of the graph is labeled C?



1. Record an estimate that is:

| too low | about right | too high |
|---------|-------------|----------|
| | | |

2. Explain your reasoning.

3.2 Relative Frequency Tables

The relative frequency tables display data collected from 230 students.

1.

| | participates in after school activity | no after school activity | total |
|---|---------------------------------------|--------------------------|-------|
| arrives home within 2 hours of school dismissal | 3% | 40% | 43% |
| arrives home 2 or more hours after school dismissal | 42% | 15% | 57% |
| total | 45% | 55% | 100% |

- a. What percentage of students participate in after school activities? How many students participate in after school activities?
- b. What percentage of students arrive home 2 or more hours after dismissal? How many students arrive home 2 or more hours after school dismissal?

2.

| | aspiring professional athlete | aspiring STEM career | total |
|---------------------------|-------------------------------|----------------------|-------|
| prefer physical education | 77% | 23% | 100% |
| prefer math | 18% | 82% | 100% |

- a. What percentage of students who prefer math aspire to have a career in STEM?
- b. What percentage of students who prefer physical education aspire to have a career in STEM?
- c. Is there evidence of an association between students' career aspirations and subject preference? Explain your reasoning.



3.

| | 9th grade | 12th grade |
|-----------|-----------|------------|
| curfew | 95% | 90% |
| no curfew | 5% | 10% |
| total | 100% | 100% |

- Of the students in 12th grade, what percentage have a curfew?
- Of the students in 9th grade, what percentage have a curfew?
- Is there evidence of an association between students' grade level and whether they have a curfew? Explain your reasoning.

3.3 Associate Your Variables

- Invent a pair of variables that you think will have an association. Explain your reasoning.
- Invent a pair of variables that you think will not have an association. Explain your reasoning.