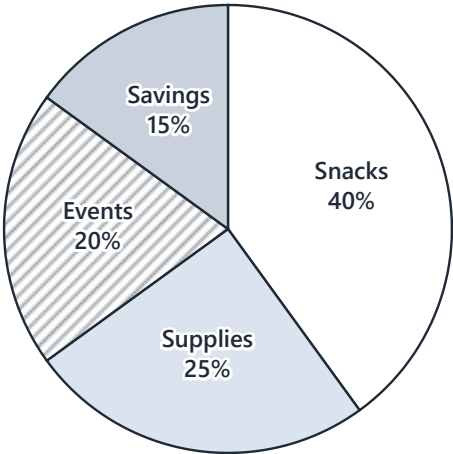


Read a Circle Graph

GRADE 7 MATHEMATICS D1.3 D1.4

A circle graph shows parts of one whole, so every slice is a share of 100%. The graph below shows where one month's spending went. Other kinds of data need other graphs, and part of the work is knowing which.

Monthly Spending by Category



Source: our class transaction history

PART A: READ THE SLICES

- 1. Snacks and Supplies together are _____% of the month.
- 2. Events and Savings together are _____% of the month.

PART B: WHICH GRAPH FOR WHICH DATA?

Match each set of data to the graph that suits it best.

- | | | |
|--|-------|----------------------------|
| 3. One month's spending split into four categories | _____ | A Broken-line graph |
| 4. A balance recorded every Friday for a term | _____ | B Circle graph |
| 5. How many students hold each classroom job | _____ | C Bar graph |
| | | D Histogram |

6. Purchase prices grouped into \$10 _____ bands

PART C: WHY THAT GRAPH?

7. A circle graph is the right choice when the data shows:
Ⓐ parts of one whole Ⓑ change over time Ⓒ how values spread across ranges
8. A slice taking up half the circle stands for:
Ⓐ 50% Ⓑ 25% Ⓒ 100%
9. A circle graph would be the wrong choice for a balance across six weeks because:
Ⓐ the six weeks are not parts of one whole Ⓑ six is too many slices to draw
Ⓒ balances are always too large

PART D: LABEL THE GRAPH

10. The month's total spending was \$200. What dollar amount would you write on the Snacks slice?

SHOW YOUR WORK

Answer: _____

11. What dollar amount would you write on the Savings slice?

SHOW YOUR WORK

Answer: _____

PART E: BUILD NEXT MONTH'S GRAPH

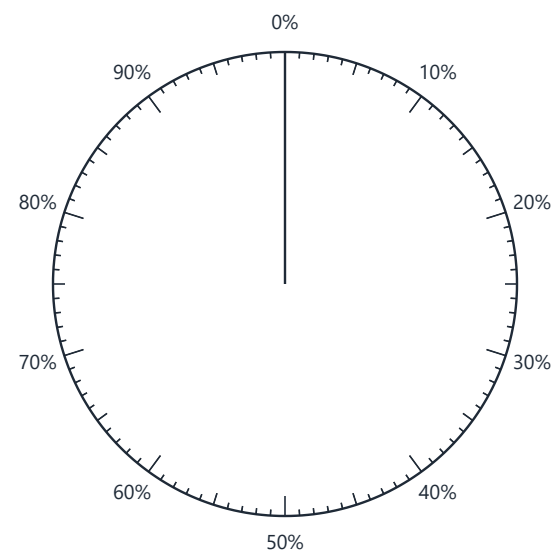
12. Next month's spending is in the table below. On the percent circle, draw a slice for each category, starting at the line at the top, and label each slice with its name and percent. Fill in the dollar column for a \$200 month, give the graph a title, and write where the numbers came from.

Next Month's Spending

Category	Percent	Dollars
Snacks	30%	
Supplies	30%	
Events	25%	
Savings	15%	

Source: our class transaction history

TITLE _____



WHERE THE NUMBERS CAME FROM _____

- 13.** Which category's share changes the most from this month to next month, and by how many percentage points?

SHOW YOUR WORK

Answer: _____

- 14.** Savings is 15% of spending in both months. How many dollars is that each month, and did the Savings dollars change?

SHOW YOUR WORK

Answer: _____

- 15.** Next month, what percent of spending goes to Snacks and Supplies together?

Answer: _____

- 16.** Write one sentence a reader of your graph should take away about next month.

Read a Circle Graph

ANSWER KEY

1. 65
2. 35
3. B) Circle graph
4. A) Broken-line graph
5. C) Bar graph
6. D) Histogram
7. A) parts of one whole
8. A) 50%
9. A) the six weeks are not parts of one whole
10. \$80.
11. \$30.
12. Four slices measured on the percent circle: Snacks 30%, Supplies 30%, Events 25% and Savings 15%, each labelled with its name and percent. The dollar column reads \$60, \$60, \$50 and \$30. A title such as "Next Month's Spending by Category" and a source line naming the class transaction history.
13. Snacks, which falls by 10 percentage points, from 40% to 30%.
14. \$30 each month, because 15% of \$200 is \$30, so the Savings dollars did not change.
15. 60%.
16. A sentence the graph supports, such as "Snacks and supplies take the same share next month, 30% each, and together they are more than half of all spending."

TEACHER NOTES

Reduced expectations: the percents are given rather than calculated from raw dollars, Part B matches data to a graph type rather than asking students to generate the choice, and Part E is built on a percent circle, with a mark every 1%, so no protractor is needed. Part E uses next month's figures, so students build a new graph rather than copying the printed one, and the question after it reads the two graphs against each other. The Standard sheet in this unit works from dollars to percents and degrees.