

Read the Stacked Bar

GRADE 5

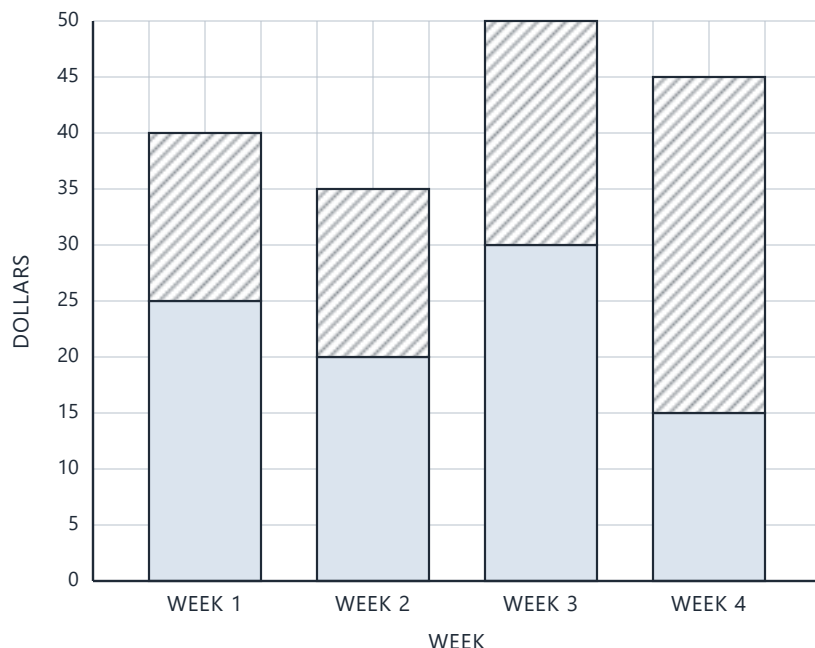
MATHEMATICS

D1.3

B2.4

A stacked bar shows one amount split into its parts. In the graph below, each bar is one week's earnings. The bottom part is what was spent and the top part is what was saved, so the whole bar is what was earned.

Where Each Week's Earnings Went

LEGEND  Spent  Saved

Source: our class store records

PART A: READ THE BARS

1. The whole bar for Week 1 stands for \$_____ earned.
2. The whole bar for Week 3 stands for \$_____ earned.
3. In Week 2, the saved part of the bar is \$_____.
4. In Week 4, the spent part of the bar is \$_____.

PART B: PARTS OF A GRAPH

Match each part of a graph to the job it does.

5. Title _____ **A** Says what the whole graph is about

- | | | |
|---------------|-------|--|
| 6. Axis label | _____ | B The steps the numbers go up in |
| 7. Scale | _____ | C Says which part of each bar is spent and which is saved |
| 8. Legend | _____ | D Says what the numbers up the side mean |

PART C: CHOOSING A GRAPH

9. Which graph shows spending and saving as the two parts of each week's earnings?
- (A) A stacked-bar graph (B) A circle graph of one week
(C) A line graph of the class size
10. What does the legend on this graph tell you?
- (A) Which part of each bar is spent and which is saved (B) How tall the tallest bar is
(C) Which week came first

PART D: COMPARE THE WEEKS

11. Which week has the tallest bar, and how much was earned that week?

SHOW YOUR WORK

Answer: _____

12. Which week saved the most, and how much did it save?

SHOW YOUR WORK

Answer: _____

13. How much did the class earn across all four weeks together?

SHOW YOUR WORK

Answer: _____

PART E: PICK A SCALE

14. This graph counts up in fives. Suppose you redraw it with fewer lines up the side. The tallest bar is \$50. Choose a new scale and explain why it fits.

PART F: ADD UP THE PARTS

15. Across all four weeks, the spent parts add up to \$_____.

16. Across all four weeks, the saved parts add up to \$_____.

17. Spent plus saved is everything earned: $\$90 + \$80 = \$$ _____.

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ANSWER KEY

1. \$40
2. \$50
3. \$15
4. \$15
5. A) Says what the whole graph is about
6. D) Says what the numbers up the side mean
7. B) The steps the numbers go up in
8. C) Says which part of each bar is spent and which is saved
9. A) A stacked-bar graph
10. A) Which part of each bar is spent and which is saved
11. Week 3, with \$50 earned.
12. Week 4, which saved \$30.
13. \$170.
14. Steps of \$10 from \$0 to \$60 fit well: the scale is a little taller than the tallest bar at \$50, and steps of \$10 keep every value easy to read. A scale stopping at \$40 would cut Week 3 off, and one going up to \$1,000 would squash all four bars into the bottom.
15. \$90
16. \$80
17. \$170

TEACHER NOTES

Reduced expectations: the stacked bar is drawn for students to read, the numbers are whole dollars on a scale of fives, and choosing a graph type is a multiple choice rather than an open judgement. The Standard sheet in this unit asks students to build the graph; the Challenge sheet asks them to defend the choice.