

Name: _____

Date: _____

Pick the Right Graph

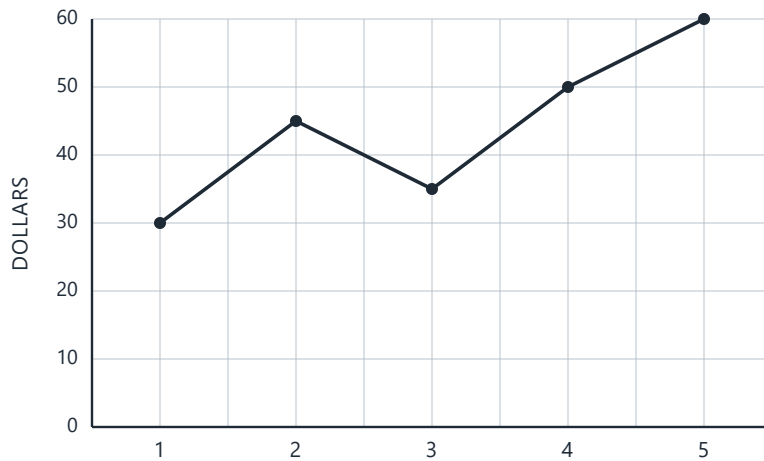
GRADE 6

MATHEMATICS

D1.3

Each graph does one job well. A bar graph compares separate things. A broken-line graph shows change over time. A circle graph shows parts of one whole. A histogram shows how many values fall into each range. The example below is a broken-line graph of a classmate's balance, drawn with every part a graph needs.

Example: A Classmate's Balance Over Five Weeks



Source: our class transaction records

PART A: DATA TO GRAPH

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

1. A balance checked every Friday for six weeks _____
2. How many students hold each classroom job _____
3. Purchase prices grouped into \$5 bands _____
4. One week's spending split into categories _____

- A** Bar graph
- B** Broken-line graph
- C** Circle graph
- D** Histogram

PART B: THE DATA YOU WILL GRAPH

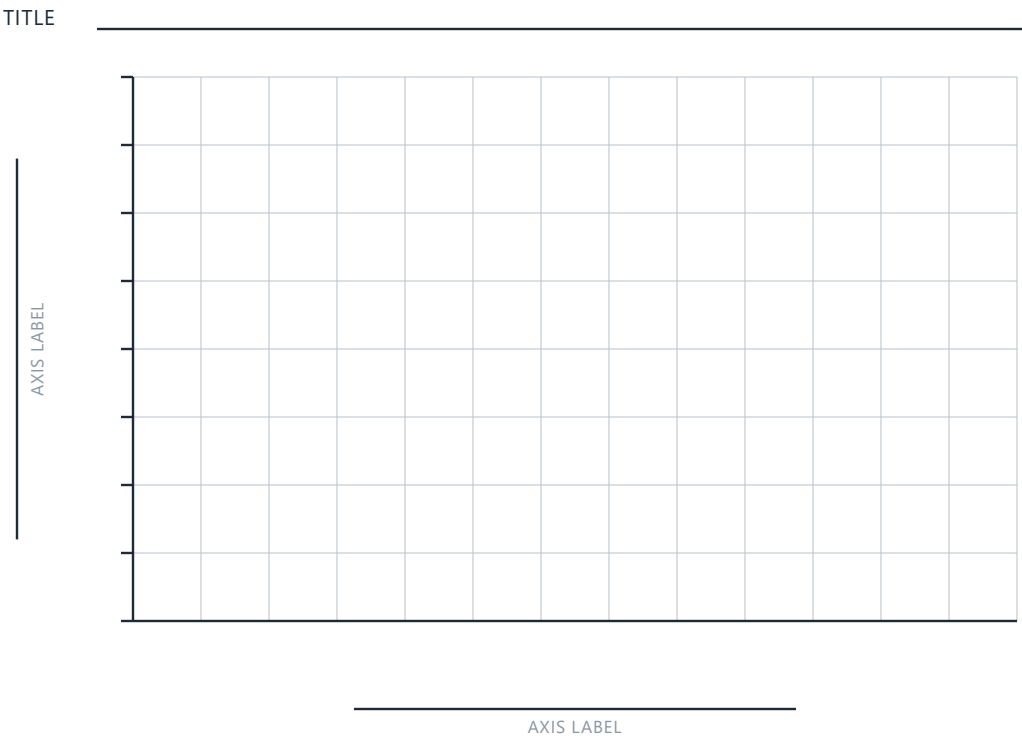
5. Your balance was \$40, \$55, \$50, \$70 and \$65 over five weeks. From week 1 to week 2 it rose by \$_____.
6. From week 2 to week 3 it fell by \$_____.
7. From week 3 to week 4 it rose by \$_____.
8. The highest balance in the five weeks was \$_____.
9. From week 4 to week 5 the balance fell by \$_____.
10. The difference between the highest and lowest balance was \$_____.
11. Counting the side of a graph up in tens, the scale would have to reach at least \$_____.

PART C: WHICH JOB?

12. Which graph shows change over time best?
☐ (A) A broken-line graph ☐ (B) A circle graph ☐ (C) A histogram
13. A histogram groups data into:
☐ (A) ranges or bins ☐ (B) categories by name ☐ (C) parts of a whole
14. In the example graph, between which two weeks did the classmate's balance fall?
☐ (A) Week 2 to week 3 ☐ (B) Week 3 to week 4 ☐ (C) Week 4 to week 5

PART D: DRAW IT AND SAY WHY

15. Draw the broken-line graph of your five weekly balances from Part B, the way the example is drawn. Put the weeks along the bottom and dollars up the side, counting up in tens. Give the graph a title, label both axes, and write a line saying where the numbers came from.



WHERE THE NUMBERS CAME FROM _____

16. In one sentence, explain why a broken-line graph suits this data better than separate bars.

- 17.** If the balance changes by the same amount from week 5 to week 6 as it did from week 4 to week 5, what will week 6 show?

SHOW YOUR WORK

Answer: _____

- 18.** From week 1 to week 5 the balance went from \$40 to \$65 over four weekly changes. On average, how much did it change each week?

SHOW YOUR WORK

Answer: _____

Pick the Right Graph

ANSWER KEY

1. B) Broken-line graph
2. A) Bar graph
3. D) Histogram
4. C) Circle graph
5. 15
6. 5
7. 20
8. 70
9. 5
10. 30
11. 70
12. A) A broken-line graph
13. A) ranges or bins
14. A) Week 2 to week 3
15. A broken-line graph with five points at \$40, \$55, \$50, \$70 and \$65, weeks along the bottom and dollars up the side counting in tens to at least \$70. A title such as "My Balance Over Five Weeks", both axes labelled, and a source line such as "from our class transaction records".
16. The reason should say the line makes it easy to see whether the balance rose or fell from one week to the next, which separate bars make harder to follow.
17. \$60, because the balance fell by \$5 from week 4 to week 5, and $\$65 - \$5 = \$60$.
18. \$6.25 a week, because it rose \$25 in all and $\$25 \div 4 = \$6.25$.

TEACHER NOTES

Reduced expectations: the graph types are described in the instructions, Part A matches rather than asks students to generate, and Part D is drawn from a list the student has already worked through. The example graph uses a classmate's different balances, so it models every part of a finished graph without being the answer to Part D. Part D is the D1.3 display work, so mark the title, the axis labels, the scale and the source line as well as the shape of the line. The Standard sheet in this unit asks students to choose and justify without prompts.