

Name: _____ Date: _____

Build the Infographic

GRADE 7

MATHEMATICS

D1.3

D1.4

An infographic is a graph, a table and a sentence doing one job together. A circle has 360 degrees, so a slice worth a given percent takes that share of 360. This term's earnings are in the table below.

Earnings This Term

Source	Dollars
Jobs	\$180
Bonuses	\$60
Badges	\$45
Gifts	\$15

Source: the class transaction records

PART A: DOLLARS TO DEGREES

1. The four sources total \$_____.
2. Jobs as a percent of the total is _____%.
3. The Jobs slice takes _____ degrees of the circle.
4. The Bonuses slice takes _____ degrees.
5. The Gifts slice takes _____ degrees.

PART B: TELL THE STORY

6. Next term Jobs rose to \$240 while the overall total rose to \$400. Did Jobs become a larger share of earnings?

SHOW YOUR WORK

Answer: _____

7. A classmate wants to show how the Jobs earnings changed across the six weeks of the term instead. Which graph should they use rather than a circle graph, and why does a circle graph not work for that question?

SHOW YOUR WORK

Answer: _____

8. A different class totals \$350: Jobs \$200, Bonuses \$80, Badges \$50 and Gifts \$20. Work out each slice to the nearest degree, then say what you must check before drawing.

SHOW YOUR WORK

Answer: _____

9. The infographic pairs the circle graph with a table. Give the percent for each of the four sources.

SHOW YOUR WORK

Answer: _____

PART C: WHAT AN INFOGRAPHIC OWES THE READER

10. An infographic names its source because:
- (A) a reader needs to know where the data came from to trust it
 - (B) it fills empty space on the page
 - (C) every graph is required by law to have one
11. A circle graph would be the wrong choice for:
- (A) a balance measured every week across a term
 - (B) one month's spending split by category
 - (C) how a class fund divides between four uses
12. The Jobs slice is 216 degrees and the Bonuses slice is 72 degrees. How many times larger is the Jobs slice?
- (A) 3 times
 - (B) 144 times
 - (C) 2 times
13. A slice of 90 degrees stands for what percent of the whole?
- (A) 25%
 - (B) 90%
 - (C) 9%

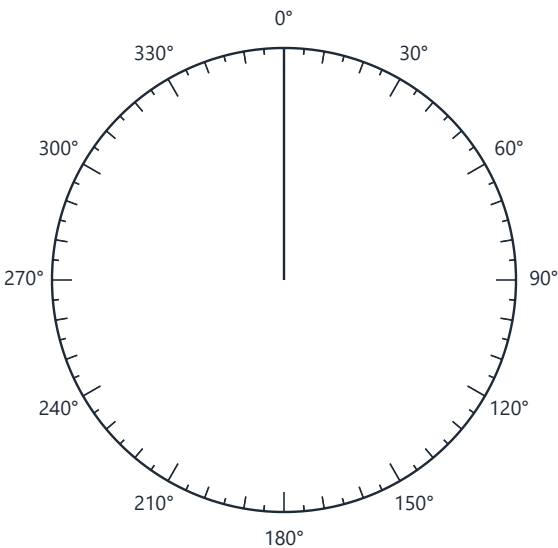
PART D: BUILD IT

14. Build the infographic for this term's earnings. On the circle, measure each slice with a protractor or the degree marks, starting at the line at the top, and label each slice with its source, percent and degrees. Fill in the table below, give the whole thing a title, and name the source of the numbers.

Infographic Table

Source	Dollars	Percent	Degrees
Jobs	\$180		
Bonuses	\$60		
Badges	\$45		
Gifts	\$15		

TITLE _____



WHERE THE NUMBERS CAME FROM _____

15. Finish the infographic with one sentence stating the story the data tells.

Build the Infographic

ANSWER KEY

1. 300
2. 60
3. 216
4. 72
5. 18
6. No. Jobs is still 60% of the total, even though the dollar amount rose by \$60.
7. A broken-line graph, because the six weeks are a sequence of separate moments rather than parts of one whole, and a circle graph can only show how one total splits up.
8. Jobs 206, Bonuses 82, Badges 51 and Gifts 21 degrees. Check that the four rounded slices still add to 360, because rounding each one on its own can leave a gap or an overlap; here they happen to come to exactly 360.
9. Jobs 60%, Bonuses 20%, Badges 15% and Gifts 5%.
10. A) a reader needs to know where the data came from to trust it
11. A) a balance measured every week across a term
12. A) 3 times
13. A) 25%
14. A circle graph with Jobs taking 216 degrees, Bonuses 72, Badges 54 and Gifts 18, every slice labelled with its source, percent and degrees. The table's rows read \$180 / 60% / 216, \$60 / 20% / 72, \$45 / 15% / 54 and \$15 / 5% / 18. A title such as "Where Our Earnings Came From" and a line naming the class transaction records as the source.
15. A sentence the graph supports, such as "Jobs provided three fifths of all earnings, more than the other three sources put together".

TEACHER NOTES

Extension beyond the grade-level expectation: the stretch is not the slice arithmetic on the first data set, whose numbers are chosen so every percent and degree comes out whole. It is Part B questions 1 to 3: separating a rise in dollars from a rise in share, rejecting the circle graph for a question it cannot answer, and a second data set whose degrees do not come out whole, where the slices have to be rounded and then checked against 360. Part D is the D1.4 build on a circle marked every 5 degrees, so mark the table and the source line as well as the graph.