

Name: _____ Date: _____

Percent Plans and Goals

GRADE 6

MATHEMATICS

B2.3

F1.2

Any percent can be built from the easy ones. 15% is 10% plus 5%. 5% is half of 10%. 1% is a hundredth, so move two places. Build it up rather than reaching for a calculator.

PART A: BUILD FROM BENCHMARKS

1. 15% of \$80 is 10% plus 5%, which is \$_____.
2. Find 1% of \$250: \$_____.
3. 5% of \$250 is five lots of 1%, which is \$_____.
4. Find 15% of \$250: \$_____.

PART B: DEALS AND GOALS

5. A \$96 reward is 25% off on Friday and 15% off on Saturday. How much more does it cost on Saturday?

SHOW YOUR WORK

Answer: _____

6. Siddharth sets aside 15% of a \$60 weekly income toward a \$135 goal. How many weeks will it take?

SHOW YOUR WORK

Answer: _____

7. A reward was \$120 and is now \$90. What percent was taken off?

SHOW YOUR WORK

Answer: _____

8. Henry has a saving goal and also takes a new job that brings money in each week. Explain how the earning goal changes the steps for the saving goal, and give one step that belongs only to the earning goal.

SHOW YOUR WORK

Answer: _____

PART C: STACKING DISCOUNTS

9. Taking 10% off and then another 10% off the new price comes to:
(A) less than 20% off in total (B) exactly 20% off (C) more than 20% off
10. Find 1% of \$340:
(A) \$3.40 (B) \$34.00 (C) \$0.34

PART D: SETTLE THE ARGUMENT

11. A classmate says two 10% discounts are the same as one 20% discount. Use a \$200 reward to show whether they are right, and explain what is really happening.

1. 12
2. \$2.50
3. \$12.50
4. \$37.50
5. Friday costs \$72.00 and Saturday costs \$81.60, so Saturday is \$9.60 more.
6. He saves \$9 a week, so it takes 15 weeks.
7. 25%, because \$30 was taken off a price of \$120.
8. The earning goal raises how much arrives each week, so the saving goal needs a smaller share of it, or the same share reaches the target sooner. A step belonging only to the earning goal is about bringing the money in, such as applying for the job and keeping it, which no amount of setting money aside can do.
9. A) less than 20% off in total
10. A) \$3.40
11. They are not right. Two 10% discounts on \$200 give \$180 and then \$162, while a single 20% discount gives \$160. The second 10% is taken off the already reduced \$180, so it removes less money than the first one did.

TEACHER NOTES

Extension beyond the grade-level expectation: Part B question 3 works backwards from a price drop to the percent, and Part D exposes the common belief that discounts add. The \$2 difference in Part D is small enough to be surprising and large enough to be worth explaining.