

Simple Interest First

GRADE 8

MATHEMATICS

F1.4

Simple interest is always worked out on the amount you started with, so it pays the same every interval. On \$100 at 5% it is \$5 the first interval, \$5 the second, and \$5 every time after that.

PART A: ONE INTERVAL

1. 5% of \$100 is \$_____.
2. 10% of \$100 is \$_____.
3. 5% of \$400 is \$_____.
4. 10% of \$250 is \$_____.

PART B: INTERVAL AFTER INTERVAL

5. Interest of \$5 an interval, for 3 intervals, totals \$_____.
6. Interest of \$20 an interval, for 4 intervals, totals \$_____.
7. \$100 at 5% simple interest for 3 intervals ends at \$_____.
8. \$400 at 5% simple interest for 4 intervals ends at \$_____.

PART C: HOW IT WORKS

9. Simple interest is worked out on:
☐ (A) the starting balance every time ☐ (B) the new balance every time
☐ (C) the interest earned so far
10. \$200 at 10% simple interest for 2 intervals earns:
☐ (A) \$40 ☐ (B) \$20 ☐ (C) \$42

PART D: SOFIA'S SAVINGS

- 11.** Sofia puts \$500 into savings at 5% simple interest. How much interest does she earn in one interval?

SHOW YOUR WORK

Answer: _____

- 12.** How much does Sofia have after 4 intervals?

SHOW YOUR WORK

Answer: _____

PART E: SAY WHY IT IS STEADY

- 13.** Explain in your own words how simple interest works, and why the amount earned is the same every interval. Then say what steady interest like this would mean for someone saving over a whole year rather than a few weeks.

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ANSWER KEY

1. 5
2. 10
3. 20
4. 25
5. 15
6. 80
7. 115
8. 480
9. A) the starting balance every time
10. A) \$40
11. \$25.
12. \$600.
13. Simple interest is always calculated on the amount you started with, so the same percentage is applied to the same number every time and the interest never changes. On \$500 at 5% it is \$25 every interval, however many intervals go by. Over a year the interest keeps arriving at the same rate, so the total grows steadily and predictably, and the longer the money is left the more of the final amount came from interest rather than from what was put in.

TEACHER NOTES

Reduced expectations: only simple interest appears, the percent is found in Part A before Part B scales it, and every rate lands on a whole number of dollars. The Standard sheet in this unit introduces compound growth beside it.