

Change: Estimate and Check

GRADE 3

MATHEMATICS

F1.1

B2.3

Estimate the change before you count it, then check. If the two are far apart, something has gone wrong, and knowing roughly what to expect is what lets you notice.

PART A: ABOUT, THEN EXACTLY

1. A 78¢ item is about 80¢, so change from \$1 is about _____¢.
2. The exact change from \$1 for a 78¢ item is _____¢.
3. A 43¢ item is about 40¢, so change from \$1 is about _____¢.
4. The exact change from \$1 for a 43¢ item is _____¢.

PART B: TWO ITEMS AND A BILL

5. Abena buys items costing 35¢ and 48¢ and pays with a toonie. Estimate her change first, then work it out exactly.

SHOW YOUR WORK

Answer: _____

6. Balraj pays \$10 for items costing \$3 and \$4, and is handed \$2 change. Show that the change is wrong and give the right amount.

SHOW YOUR WORK

Answer: _____

7. Yuki pays with a loonie and receives 35¢ change. She bought two things, and one of them cost 40¢. What did the other cost?

SHOW YOUR WORK

Answer: _____

PART C: PICK THE STRATEGY

8. A 96¢ item is paid for with a loonie. Which mental strategy reaches the change quickest?
- (A) Count up from 96 to 100 (B) Line up 100 and 96 and subtract in columns
(C) Add 96 and 100 together
9. Change from \$2 for an item costing \$1.25 is:
- (A) 75¢ (B) \$1.25 (C) 25¢

PART D: WRITE ONE THAT IS CLOSE

10. Write a change problem where the estimate and the exact answer are close but not the same. Show both answers and say how far apart they are.

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ANSWER KEY

1. 20
2. 22
3. 60
4. 57
5. Estimating with 40¢ and 50¢ gives about 90¢ spent, so roughly \$1.10 change. The exact total is 83¢, so her change is \$1.17.
6. The items come to \$7, so the change should be \$3. He was given \$1 too little.
7. 25¢, because she spent 65¢ altogether.
8. A) Count up from 96 to 100
9. A) 75¢
10. Answers will vary. Example: an 87¢ item paid for with a loonie. Rounding 87¢ to 90¢ estimates 10¢ change, while the exact change is 13¢, a gap of 3¢. A good problem keeps the two close enough to check each other but far enough apart to notice the difference.

TEACHER NOTES

Extension beyond the grade-level expectation: Part B question 3 runs the transaction backwards from the change to a missing price, and question 2 asks students to find an error rather than compute a total. Part C question 1 is marked qualitative because the answer is a strategy, not a number.