

Adding and Subtracting Decimals

NCTM Standards 1, 2, 6, 7, 8, 9

Three of these problems are answered incorrectly. As quickly as you can, and without writing anything, use rounding and compatible numbers to find the incorrect answers. If a problem is incorrect, put a check in the box.

1 $8.721 + 0.49 = 8.1211$

INCORRECT?

2 $5.453 - 1.1 = 4.353$

INCORRECT?

3 $0.025 + 0.96 = 0.985$

INCORRECT?

4 $16.7 + 3.284 = 13.416$

INCORRECT?

5

$$\begin{array}{r} 5.23 \\ + 2.77 \\ \hline 8.00 \end{array}$$

INCORRECT?

6

$$\begin{array}{r} 12.085 \\ - 1.6 \\ \hline 10.485 \end{array}$$

INCORRECT?

7

$$\begin{array}{r} 2.906 \\ + 9.0482 \\ \hline 11.1388 \end{array}$$

INCORRECT?

8

$$\begin{array}{r} 3.58 \\ - 0.001 \\ \hline 3.579 \end{array}$$

INCORRECT?

9

$$\begin{array}{r} 8.88 \\ + 2.22 \\ \hline 11.10 \end{array}$$

INCORRECT?

10

$$\begin{array}{r} 10.01 \\ - 3.6 \\ \hline 9.65 \end{array}$$

INCORRECT?

For each problem above with an incorrect answer, explain how you used rounding or compatible numbers to find the ones that were wrong. Then find the correct answer.

11

12

13



14 Nicholas earned twenty dollars doing yard work for his neighbor. He spent \$9.45 of the money he earned on a ticket to a baseball game and \$3.40 on snacks. How much of the twenty dollars does he have left? Explain.

Here are more student responses. All of these are incorrect. Describe what the student may have done wrong, and then correct the problem.

15

ROLANDO

$$0.103 + 0.09 = 0.112$$

16

STACEY

$$22.6 - 1.73 = 5.3$$

17

CARMEN

$$18.62 + 2.7 = 20.132$$

18 Challenge

DANTE

$$18.009 - 0.75 = 10.509$$