LESSON MAKER PRO

Decimal Detective

Estimate and solve decimal sums and differences.

GRADE 4 · 4.CE.4.a.ii

4.CE.4.a.ii "Apply strategies (e.g., rounding to the nearest whole number, using compatible numbers) and algorithms, including the standard algorithm, to estimate and determine the sum or difference of two decimals through the thousandths..."

NAME _____ DATE _____

LINE UP THE PLACES

Keep decimal points in one column. Add or subtract from right to left, regroup when a place has 10 or more. For an estimate, round each number to the nearest whole number first.

WORKED EXAMPLE

3.204 + 6.125

1. Add thousandths: 4 + 5 = 9.
2. Add hundredths: 0 + 2 = 2.
3. Add tenths: 2 + 1 = 3.
4. Add ones: 3 + 6 = 9.

Answer: 9.329

PRACTICE 6 problems

1 Estimate by rounding to the nearest whole number: 4.683 + 2.251

ANSWER _____

2 Find the exact sum: 8.407 + 3.586

ANSWER _____

3 Find the exact difference: 9.000 - 6.728

ANSWER _____

4 Estimate by rounding to the nearest whole number: 9.764 - 4.218

ANSWER _____

5 Find the exact sum: 3.905 + 0.876

ANSWER _____

6 Find the exact difference: 9.430 - 7.695

ANSWER _____

APPLY IT Show your work

1 Maya uses 2.375 meters of string for a friendship bracelet and 1.628 meters for a key chain. Estimate the total length by rounding to the nearest whole meter. Then find the exact total length.

WORK SPACE

ANSWER _____

2 A student has 7.000 GB of free space on a tablet. A video project uses 2.483 GB. How much free space remains?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Find 9.999 + 0.001. Explain in one sentence how the thousandths place changes.

WORK SPACE AND ANSWER

ANSWER KEY # Decimal Detective

GRADE 4 · 4.CE.4.a.ii

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate by rounding to the nearest whole number: 4.683 + 2.251	**7**
2	Find the exact sum: 8.407 + 3.586	**11.993**
3	Find the exact difference: 9.000 - 6.728	**2.272**
4	Estimate by rounding to the nearest whole number: 9.764 - 4.218	**6**
5	Find the exact sum: 3.905 + 0.876	**4.781**
6	Find the exact difference: 9.430 - 7.695	**1.735**

PART 2 · APPLY IT

1. **Estimate: 4 meters; exact: 4.003 meters** Round 2.375 to 2 and 1.628 to 2 for an estimate of 4. Add the decimals to get 4.003 meters.
2. **4.517 GB** Subtract 2.483 from 7.000, regrouping across the zeros as needed.

CHALLENGE

10.000; Adding 1 thousandth to 9.999 makes 10 thousandths, and regrouping carries the value to the ones place.

Accept equivalent decimal forms with or without trailing zeros. For estimates, accept answers based on rounding each number to the nearest whole number.