

Lesson Notes

1.5

NAME _____

Module 1 Number Sense
Lesson 5 Estimation

Lesson Objectives

- Develop and use strategies to estimate the results of whole number computations and judge the reasonableness of such results.
- Read, write, compare, and solve problems involving whole number computations with and without appropriate technology.

Subtopic 1 Exact Answer or Estimate

The symbol \approx means “is approximately equal to.”

Estimate

- Shows what to _____
- Gives _____ feedback
- Helps determine if an answer is _____

Estimates are _____ answers, NOT exact answers.

For each of the following, decide if an exact answer is needed or if an estimate will work.

- 1 Approximately how many fish are in the aquarium?
- 2 How many nickels are in \$3?

Subtopic 2 Estimation Strategies: Front-End Estimation

_____ Estimation is a method of estimating where one uses the numbers in front, the numbers with the _____ place value.

Front-End Estimation can be used in situations when a quick _____ or a _____ estimate is needed.

Estimate using Front-End Estimation.

- 3 $415 + 748$ _____
- 4 $570 - 228$ _____

Subtopic 3 Estimation Strategies: Rounding

To round a number:

- Select the place value to which to round.
- Look at the digit to its _____.
- If digit is 5 or greater, _____ the rounding place digit by 1. If less than 5, rounding place stays the _____.
- Replace digits to the _____ with zeros.

Round each number to the given place value.

5

Round 92 to the nearest 10.

6

Round 995 to the nearest 100.

Subtopic 4 Estimation Strategies: Compatible Numbers

_____ are numbers that are easy to use mentally.

7

Vic donated \$337 to charity last month. This month, he donated \$467. Approximately how much did Vic donate?

Subtopic 5 Comparing and Combining Estimation Strategies

To use Front-End Estimation and Rounding, round each number to its _____ place value.

8

Jax purchases a MP3 player for \$189 and a DVD player for \$125. About how much does he pay for both items?

Estimate using the given estimation strategy.

Front-End Estimation $344 + 275 \approx$ _____

Front-End Estimation with Rounding $344 + 275 \approx$ _____

Rounding to Nearest Ten $344 + 275 \approx$ _____

Exact Answer $344 + 275 =$ _____

Which estimation strategy one uses depends on how close the _____ needs to be to the _____.