

KEY CONCEPT OVERVIEW

In Lessons 11 and 12, students add multi-digit numbers and solve multi-step word problems.

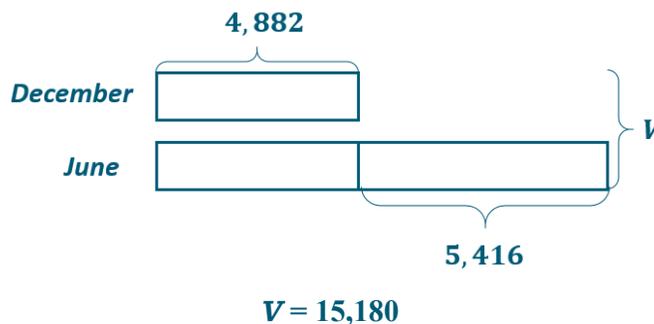
You can expect to see homework that asks your child to do the following:

- Solve addition problems using the **standard algorithm**.
- Solve word problems using variables to represent the unknown numbers and **strip diagrams** as models.
- Use rounding to check if the answers make sense.

SAMPLE PROBLEM *(From Lesson 12)*

Model the problem with a strip diagram. Estimate and then solve. Explain if your answer is reasonable.

There were 5,416 more visitors to the museum in the month of June than in the month of December. December had 4,882 visitors. How many visitors did the museum have during both months?



- a. About how many visitors did the museum have during June and December?

$$5,000 + 5,000 + 5,000 = 15,000$$

The museum had about 15,000 visitors during June and December.

- b. Exactly how many visitors did the museum have during June and December?

The museum had exactly 15,180 visitors during June and December.

$$\begin{array}{r}
 4,882 \\
 4,882 \\
 + 5,416 \\
 \hline
 15,180
 \end{array}$$

- c. Is your answer reasonable? Compare your estimate to the answer. Write a sentence to explain your reasoning.

My answer is reasonable because my estimate of 15,000 is only about 200 less than the actual answer of 15,180. My estimate is close because two addends rounded up and one rounded down.

HOW YOU CAN HELP AT HOME

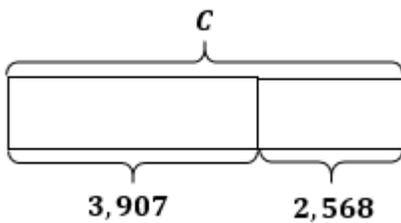
- Provide opportunities for your child to practice multi-digit addition. Ask her to look in a magazine or newspaper for numbers greater than one thousand. Tell her to choose two of the numbers and to add them together. Ask her to explain each step.
- Pose word problems to your child and ask him to solve them. For example, Mark typed 2,345 words on Monday and 3,867 words on Tuesday. How many words did Mark type altogether on Monday and Tuesday? Encourage your child to draw a strip diagram, to round to estimate an answer, and then to find the exact answer. Answers should be written as statements. Ask your child to assess the reasonableness of his answer. Does the answer make sense?
- Look at a school calendar. Prompt your child to count how many days of school there have been so far. Then, ask her to count how many days of school there are left. Ask her to calculate the total number of days in the school year, first by estimating and then by using the exact numbers. Have her draw a strip diagram to represent the problem.

TERMS

Standard algorithm: A standard step-by-step procedure to solve a particular type of problem (e.g., the process of adding vertically with regrouping is a standard algorithm).

MODELS

Strip Diagram



Strip Diagram

