TIPS FOR FAMILIES

KEY CONCEPT OVERVIEW

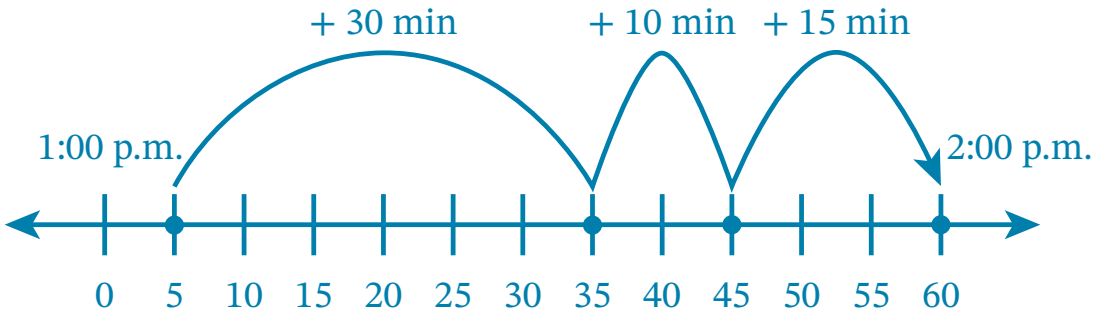
In Lessons 1 through 3, students focus on telling time. Students learn that the **number line** can be used as a tool to help them add and subtract intervals of time.

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

- Solve problems involving amounts of time given as minutes or seconds.
- Read and write the time to the nearest minute using **analog** and digital clocks.
- Use a number line to solve word problems involving time.
- Solve word problems involving addition and subtraction of time intervals.

SAMPLE PROBLEM *(From Lesson 3)*

Luke wants to watch a movie that starts at 1:55 p.m. It takes him 30 minutes to exercise, 10 minutes to take a shower, and 15 minutes to drive to the theater. If Luke starts exercising at 1:05 p.m., can he make it on time for the movie? Explain your reasoning.



No, Luke can't make it on time for the movie. From the number line, I can see that he will be five minutes late.

HOW YOU CAN HELP AT HOME

- Record the time your child starts an activity, such as setting the table for dinner or reading, and record the ending time. Ask your child to figure out how many minutes the activity lasted.
- Make a schedule of activities with your child and have them estimate the number of minutes each activity will take.

TERMS

Interval: Time passed or a part on the number line.

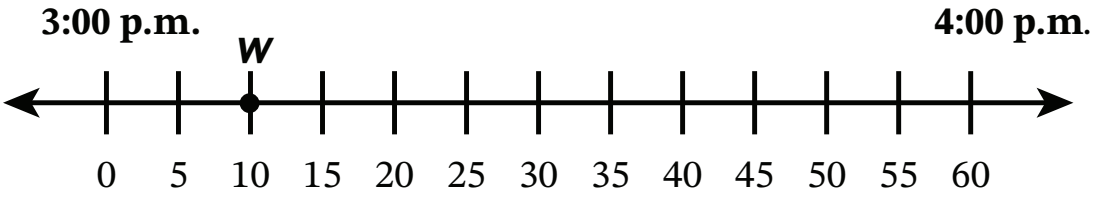
Minute: A unit for measuring time that is equivalent to 60 seconds or $\frac{1}{60}$ of an hour.

Second: A unit for measuring time that is equivalent to $\frac{1}{60}$ of a minute.

MODELS

Analog Clock

Number Line: A line on which numbers are marked at equal **intervals**.



3:10 p.m. plotted on the number line

TIPS FOR FAMILIES

KEY CONCEPT OVERVIEW

In Lessons 4 through 9, students measure and **estimate** the weights of objects and **liquid volumes**.

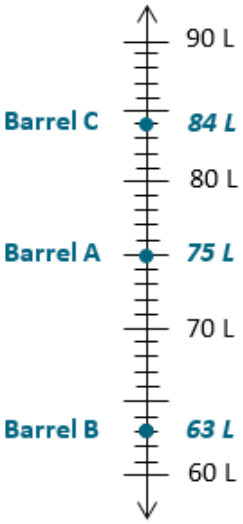
You can expect to see homework that asks your child to do the following:

- Read and write **metric weights** (in grams or kilograms) and liquid volumes (in milliliters or liters).
- Plot **capacities** on a vertical number line (as shown in the sample problem below).
- Solve word problems involving metric weight, liquid volume, and capacity.

SAMPLE PROBLEM *(From Lesson 8)*

Label the number line to show the capacity of the 3 barrels in the chart below.

Barrel A	75 liters
Barrel B	63 liters
Barrel C	84 liters



a. Which barrel has the greatest capacity?

Barrel C has the greatest capacity because it is highest on the number line.

b. Which barrel has the smallest capacity?

Barrel B has the smallest capacity because it is lowest on the number line.

HOW YOU CAN HELP AT HOME

- At the store, ask your child to use the food scale in the produce section. Have him guess the metric weight (in grams or kilograms) before he puts an item on the scale.
- Ask your child to use a 1-cup measure to fill up a liter bottle and then tell you about how many cups are in a liter.
- Send your child on a metric measurement scavenger hunt. Have her go through your pantry and write down quiz questions about metric weights and liquid volumes of packaged goods. She can then quiz the family, asking them to guess how many grams of green beans there are in a can or how many milliliters there are in a container of orange juice. The closest guess gets a point. The person who gets to 3 points first wins.

TERMS

Capacity: The amount of liquid that a particular container can hold.

Estimate: Approximation of the value of a quantity or number (e.g., the number 379 can be estimated to be 400).

Liquid volume: The amount of space taken up by a liquid (e.g., the amount of liquid in a measuring cup).

Metric weight: Weight measured in the metric system (e.g., using grams and kilograms).

TIPS FOR FAMILIES

KEY CONCEPT OVERVIEW

Lessons 10 through 12 focus on understanding **place value** and representing numbers up to 100,000 in different forms, including on a **place value chart.** The lessons emphasize that each place value is separated using commas for naming base thousand units.

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

- Label place value charts (up to 100,000; for example, 89, 421), draw disks, and show regroupings/bundlings.
- Write numbers in the following forms:
  - Unit form (e.g., 4 thousands 3 hundreds 2 ones),
  - Standard form (e.g., 4,302),
  - Expanded form (e.g., 4,000 + 300 + 2),
  - Expanded notation (e.g., (4 x 1,000) +(3 x 100) + (2 x 1)), and
  - Word form (e.g., four thousand, three hundred two).
- Compare numbers using the less than (<), greater than (>), and equal sign (=).

SAMPLE PROBLEM *(From Lesson 12)*

hundred thousands	ten thousands	thousands	hundreds	tens	ones
		8	9	0	7
		8,000	900		7
		(8 x 1,000)	(9 x 100)		(7 x 1)

8,000 + 900 + 7 = 8,907

(8 x 1,000) + (9 x 100) + (7 x 1) = 8,907

HOW YOU CAN HELP AT HOME

- Support your child as he draws and labels a place value chart (up to hundred thousands). Ask him to say a large number (up to 100,000). Represent the number on the place value chart using cereal pieces for disks. Challenge each other to say the name of the number that was created, using the number forms previously listed.
- Ask your child to think of a number less than hundred thousands. See how many different ways she can represent the number in unit form (e.g., 2,345 as 23 hundreds 4 tens 5 ones; 2,345 ones; or 234 tens 5 ones). Writing the number within a place value chart might be helpful in this process.

- Play the "Build a Number" game with your child. The objective of the game is to build a larger number than your opponent.
  1. Each player draws and labels a place value chart that extends to the hundred thousands.
  2. Players take turns rolling a die.
  3. Each time a player rolls, he chooses a place in his place value chart to draw disks to represent the number rolled. Only one number can be represented in each place.
  4. Play continues until each player has filled all of the places on his chart. Compare the numbers. The player with the larger number wins. (Variation: Build a smaller number.)

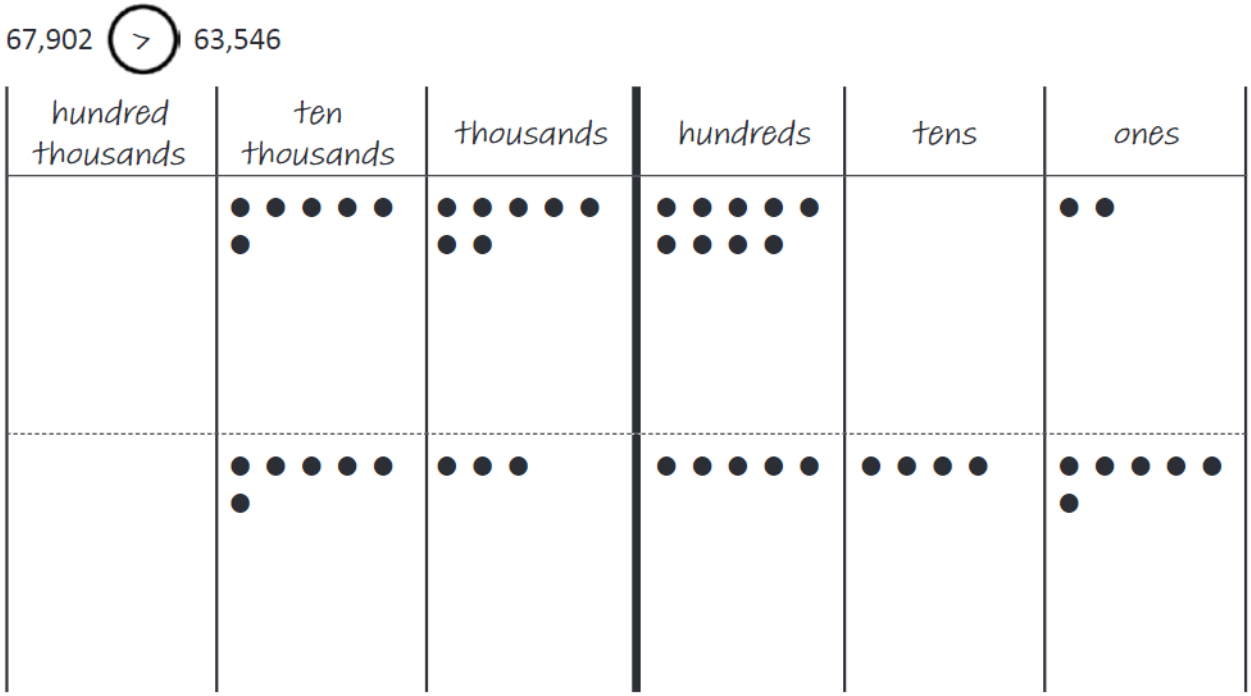
TERMS

Equation: A statement that two expressions are equal. For example, 2,349 + 32,401 = ___ or 2,349 + 32,401 = 34,750.

Place value: The value of a given digit based on its position in a number. For example, the place value of the digit 2 in 235 is 200 (i.e., 2 hundreds)

MODELS

Place Value Chart



TIPS FOR FAMILIES

KEY CONCEPT OVERVIEW

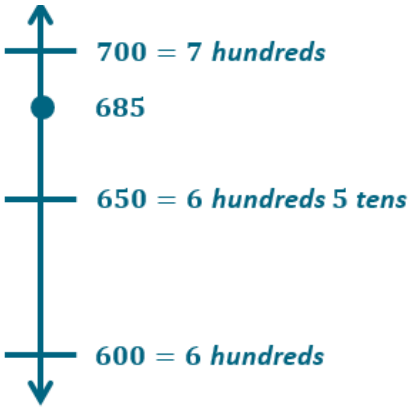
In Lessons 13 through 16, students **round** to the nearest ten, hundred, thousand or ten thousand, using a **vertical number line**.

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

- Round numbers to the nearest ten, hundred, thousand or ten thousand using a vertical number line.
- Use the symbol ≈ to represent rounded numbers (as shown in the Sample Problem below).
- Solve word problems involving rounding.

SAMPLE PROBLEM *(From Lesson 15)*

There are 685 people at a basketball game. Draw a vertical number line to round the number of people to the nearest hundred.



685 ≈ 700

685 rounded to the nearest hundred is 700
because 685 is more than halfway to the next hundred.

About 700 people are at the basketball game.

To LEARN MORE about rounding using the vertical number line, visit eurmath.link/rounding-vertical-numline.

HOW YOU CAN HELP AT HOME

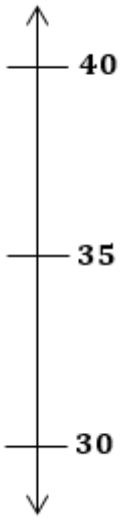
- Ask your child to round everyday measurements to the nearest ten or hundred. For example, after you pump gas, ask your child to round the number of gallons to the nearest ten.
- Challenge your child to list all the numbers that can be rounded to a given multiple of ten. For example, ask, "What numbers can be rounded to 20?" (15, 16, 17, 18, 19, 20, 21, 22, 23, and 24)

TERMS

Round: Replace a number with another of approximately the same value. For example, 73 rounded to the nearest ten is 70.

MODELS

Vertical Number Line



TIPS FOR FAMILIES

KEY CONCEPT OVERVIEW

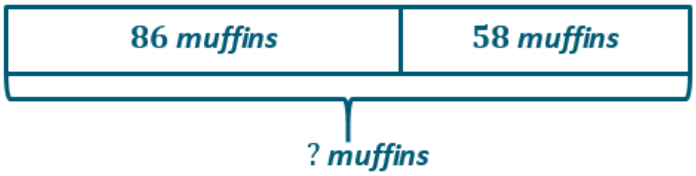
In Lessons 17 through 19, students focus on adding two- and three-digit numbers.

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

- Add two- and three-digit numbers.
- Estimate **sums** by rounding (e.g., 29 g + 18 g ≈ 30 g + 20 g = 50 g).
- Solve word problems involving addition by using the **standard algorithm**.

SAMPLE PROBLEM *(From Lesson 18)*

Sue bakes muffins for the school bake sale. After wrapping 86 muffins, she still has 58 muffins left cooling on the table. How many muffins did she bake altogether?



$$\begin{array}{r} 8\ 6 \\ +\ 5\ 8 \\ \hline 1\ 4\ 4 \end{array}$$

Sue baked 144 muffins altogether for the school bake sale.

HOW YOU CAN HELP AT HOME

- Use a deck of cards (without the 10's or face cards) to practice addition. Have your child turn over two or three cards to create a two- or three-digit number, and then have your child turn over two or three more cards to create another number. Ask your child to add the two numbers.

TERMS

Sum: The answer when numbers are added together. For example, in $3 + 2 = 5$, the number 5 is the sum.

MODELS

Standard Algorithm for Addition: A standard step-by-step procedure to solve an addition problem. For example, the process of adding vertically with regrouping is the standard algorithm for addition.

$$\begin{array}{r} 59 \text{ kg} \\ +\ 76 \text{ kg} \\ \hline 135 \text{ kg} \end{array}$$
$$\overset{1}{}$$

TIPS FOR FAMILIES

KEY CONCEPT OVERVIEW

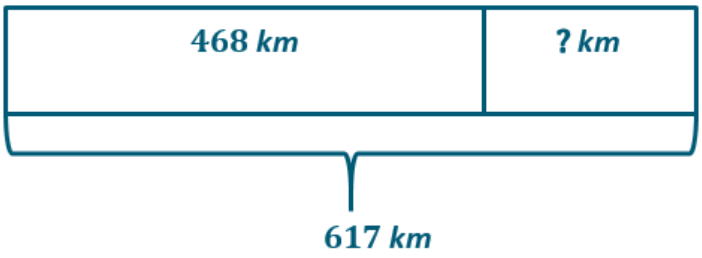
In Lessons 20 through 23, students focus on subtracting two- and three-digit numbers. They learn how to prepare the top number before they subtract (as shown in the Sample Problem below).

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

- Add and subtract numbers.
- Estimate **differences** by rounding (e.g., 43 mL – 29 mL ≈ 40 mL – 30 mL = 10 mL).
- Solve word problems involving subtraction or addition by using the **standard algorithm**.

SAMPLE PROBLEM *(From Lesson 21)*

David is driving from Los Angeles to San Francisco. The total distance is 617 kilometers. He has 468 kilometers left to drive. How many kilometers has he driven so far?



$$\begin{array}{r} {\scriptstyle 10} \\ 5\ \not{0}\ {\scriptstyle 17} \\ \not{6}\ \not{1}\ 7 \\ -\ 4\ 6\ 8 \\ \hline 1\ 4\ 9 \end{array}$$

David has driven 149 kilometers so far.

HOW YOU CAN HELP AT HOME

- When you are in the car or on the go, ask your child to solve basic addition or subtraction facts, such as 16 – 7 or 6 + 5. Make a game out of it and score points for correct answers!
- Pour liquid into a liquid measuring cup and ask your child to read the amount of liquid in milliliters or ounces. Then pour out some of the liquid, have your child read the measuring cup again, and ask him/her to subtract to determine how much liquid you poured out.

TERMS

Difference: The answer when subtracting two numbers. For example, in 5 – 2 = 3, the number 3 is the difference.

MODELS

Standard Algorithm for Subtraction: A standard step-by-step procedure to solve a subtraction problem. For example, the process of subtracting vertically with regrouping is the standard algorithm for subtraction.

$$\begin{array}{r} {\scriptstyle 10} \\ 5\,\not{0}\,{\scriptstyle 17} \\ \not{6}\;\not{1}\;7 \\ -\;2\;4\;9 \\ \hline 3\;6\;8 \end{array}$$