# 1B Compare and Order Numbers

**Learning Objective(s)**
- Compare and order numbers within 1,000,000.

**Material(s)**
- 1 set of place-value chips
- 1 set of place-value strips
- 1 copy of Place-Value Chart 3 (TR03)
- 1 copy of Number Cards (TR04)

## Lesson Opener
**Task** (Student Book, page 11)

Show your student the **Lesson Opener** and cover the rest of the page. Discuss the question with your student. Do not show your student how to do the task and allow him/her to explore the concept using place-value chips and a copy of Place-Value Chart 3 (TR03).

Refer your student to **Learn** and **Learn Together** in the Student Book for reflection after your student has explored the concepts. Use questions to build understanding and direct instruction to refine understanding.

## Lesson Development
### Learn (Student Book, page 11)

Invite your student to use place-value chips and a copy of Place-Value Chart 3 (TR03) to represent 31,201 and 25,013. Encourage your student to use the value of each digit to determine which number is greater. You may wish to ask these questions:

💬 **Which place in both numbers holds the greatest value?** *The ten thousands place.* **How can this place help you determine the greater number?** *3 ten thousands are greater than 2 ten thousands.* **How is this similar to comparing 1,201 and 5,013?** *When comparing 4-digit numbers, the greatest place value will be compared first. It is the same when comparing 5-digit numbers.*

If needed, use the place-value strips to create each number and show the value of each digit. Remind your student to record the comparison equation using < or >.

### Digging Deeper

Challenge your student to consider whether comparing the place with the greatest value will always work. Invite your student to give examples using place-value chips.

### Focus Question

💬 **How do you compare and order numbers within 1,000,000?**

Invite your student to ponder this question as you go through the lesson. Revisit this question when you reach the end of the lesson to check his/her understanding.

### Teaching Tip

In this lesson, your student will first use place-value chips to count each place value to compare. By the end of the lesson, your student will use digits in the place-value chart to compare. If needed, encourage your student to use the place-value chips to show each number and tell how much greater/less each digit is when comparing.

# Chapter Practice (Student Book, pages 35 to 38)

- Have your student work on **Chapter Practice** in the Student Book independently to help him/her consolidate and extend understanding of the chapter.
- You may find a summary of the chapter learning objectives and the difficulty level of the questions below.
- Teaching prompts are provided for Levels 2 and 3 questions.
- When your student is ready, have him/her work on **Additional Practice 4A, Chapter Practice**.

| Questions | Level | Chapter 1 Learning Objective(s) | Section(s) | Day(s) |
|---|---|---|---|---|
| 1 | 1 | Read and write numbers up to 1,000,000. | 1A | 2 |
| 2 | 1 | Read and write numbers up to 1,000,000. | 1A | 2 |
| 3 | 1 | Relate the value of each digit in a multi-digit number to its place. | 1A | 2 |
| 4 | 1 | Relate the value of each digit in a multi-digit number to its place. | 1A | 2 |
| 5 | 1 | Read and write numbers up to 1,000,000. | 1A | 2 |
| 6 | 1 | Compare and order numbers within 1,000,000. | 1B | 3 |
| 7 | 1 | Compare and order numbers within 1,000,000. | 1B | 3 |
| 8 | 1 | Compare and order numbers within 1,000,000. | 1B | 3 |
| 9 | 1 | Form a number or shape pattern using a given rule. | 1C | 4 |
| 10 | 1 | Round numbers to the nearest thousand.<br>Round numbers to the nearest ten thousand.<br>Round numbers to the nearest hundred thousand. | 1D | 5, 6 |
| 11 | 2 | Read and write numbers up to 1,000,000. | 1A | 2 |
| 12 | 3 | Find the rule of a pattern.<br>Form a number or shape pattern using a given rule. | 1C | 4 |

After this review, your student should be able to complete the task on page 40 of Student Book independently.

- **QUESTION I** assesses your student's ability to fluently add and subtract within 10,000.
- **QUESTION 2** assesses your student's ability to solve a two-step word problem involving subtraction.
- **QUESTION 3** assesses your student's ability to solve a two-step word problem involving addition and subtraction.

## Recall Answers

(Student Book, page 40)

1. (a) = 10,000

$$
\begin{array}{r}
\overset{1}{\phantom{0}}\ \overset{1}{\phantom{0}}\ \overset{1}{\phantom{0}}\ \phantom{0} \\
8\ 9\ 9\ 7 \\
+\ 1\ 0\ 0\ 3 \\
\hline
1\ 0\ 0\ 0\ 0
\end{array}
$$

(b) = 4,256

$$
\begin{array}{r}
8\ \cancel{6}^{5}\ \cancel{2}^{11}\ \cancel{1}^{11} \\
-\ 4\ 3\ 6\ 5 \\
\hline
4\ 2\ 5\ 6
\end{array}
$$

2.
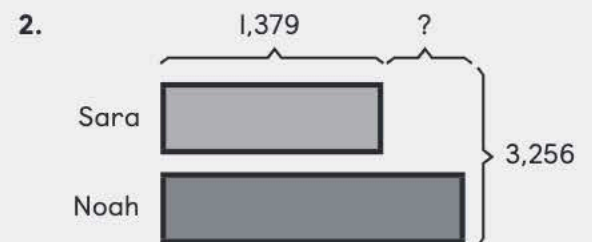


$3,256 - 1,379 = 1,877$
Noah has 1,877 game cards.
$1,877 - 1,379 = 498$
498

3.



$2,906 - 59 = 2,847$
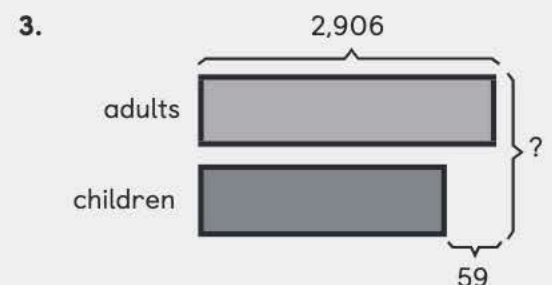There were 2,847 children.
$2,906 + 2,847 = 5,753$
5,753

# 2B Subtract Multi-Digit Whole Numbers

## Learning Objective(s)
- Fluently subtract multi-digit numbers without and with renaming.
- Estimate the answers to subtraction problems and check the reasonableness of calculated answers.

## Material(s)
- 1 set of place-value chips
- 1 copy of Place-Value Chart 2 (TR02)
- 1 copy of Grid Paper (TR06)
- 1 copy of Place-Value Chart 1 (TR01)
- 1 copy of Number Cards (TR04)

### Lesson Opener

**Task** (Student Book, page 45)

Show your student the **Lesson Opener** and cover the rest of the page. Discuss the question with your student. Do not show your student how to do the task and allow him/her to explore the concept using place-value chips and a copy of Place-Value Chart 1 (TR01).

Refer your student to **Learn** and **Learn Together** in the Student Book for reflection after your student has explored the concepts. Use questions to build understanding and direct instruction to refine understanding.

## Lesson Development

### Learn (Student Book, page 45)

Invite your student to consider the problem on page 45 and what number should be represented using the place-value chips. In this problem, the greater number should be represented. By finding the difference between the number of rolls and pies, your student will be able to find how many more rolls that were sold than pies.

Ask your student to show the subtraction of 5,436 from 8,072 using the place-value chips. Encourage your student to explain each step and use the vertical algorithm to record. You may wish to ask these questions:

💬 **What happened when you subtracted from the ones place?** *There were not enough ones to subtract 6 ones.* **How did you continue subtracting?** *Rename 1 ten for 10 ones and add them to the 6 to get 16 ones.* **How did this change the tens place?** *Now there are only 6 tens.* **What other places did you have to rename?** *The hundreds place.* **Why?** *There were not enough to subtract.*

## Focus Question

💬 **How does place value help you subtract multi-digit numbers without and with renaming?**

Invite your student to ponder this question as you go through the lesson. Revisit this question when you reach the end of the lesson to check his/her understanding.

## Teaching Tip

The **Learn** is a comparison problem to subtract. If necessary, draw a bar model to show that finding the difference would be a subtraction problem to see how many more rolls were sold than pies. From the bar model, it shows that the problem is asking for the difference between the number of rolls and the number of pies that were sold.
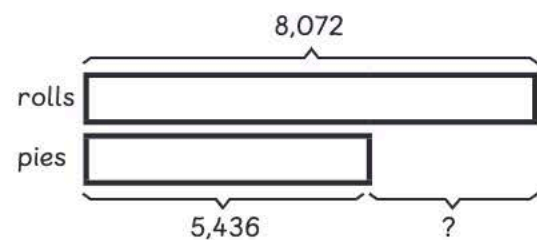


## Learn Answers (Student Book, page 45)

2,636; 2,636

Remind your student that estimation is great way to mentally assess whether the answer is reasonable.

## Learn Together (Student Book, pages 54 and 55)

Provide your student with place-value chips to model the problems in **Learn Together**.

Invite your student to use the four-step problem-solving method to solve the problems using the bar model. You may wish to ask your student to draw the model first and then look at the model provided after solving.

Through questioning, lead your student to solve two-part word problems in **Learn Together**. You may wish to ask the following questions:

💬 **What do you know in Question I?** *A hockey stadium has a capacity of I07,60I seats. It sells some tickets on Monday and some on Tuesday.* **Why does this question have two parts?** *I am first finding the total number of tickets sold and then finding the number of tickets the stadium needs to fill all the seats.* **What do you know about Question 2?** *Who scored more points and how many points Ella scored.* **What parts of the two bars are the same?** *Pablo's points will be the same in each bar.* **What does that tell you about Ella's points?** *She scored more than Daniel because Pablo's and Ella's bars are longer.* **How will you find Ella's points?** *Once I know the difference, I can add it to Daniel's total number of points.*

After your student has explored the concepts in the **Lesson Opener, Learn,** and **Learn Together**, you may wish to ask these questions to encourage further reflection:

💬 **How does the model match the information in the word problem? How does it show key information?**

You may wish to have your student summarize his/her learning in a math journal. Invite your student to write his/her own two-part problem and solve it with a bar model.
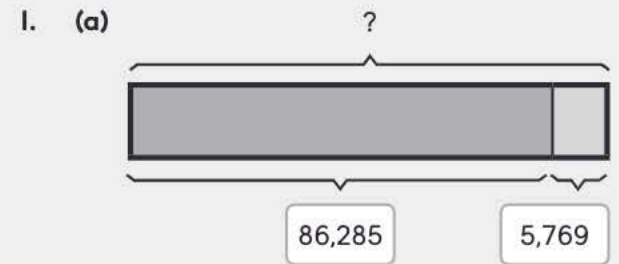
- **QUESTION I** requires your student to solve a two-part word problem using a part-whole models.
- **QUESTION 2** requires your student to use two comparison models to solve a two-part word problem.
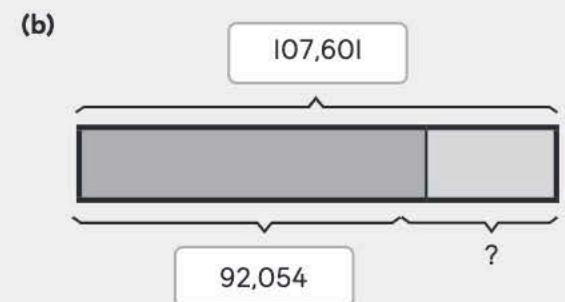
> ### Digging Deeper
>
> In QUESTION 2, your student will be required to compare 3 different quantities. Remind your student that when comparing the number of points scored, Pablo would have the same number in each bar. Therefore, the difference in Part (a) would have to describe Ella's points.
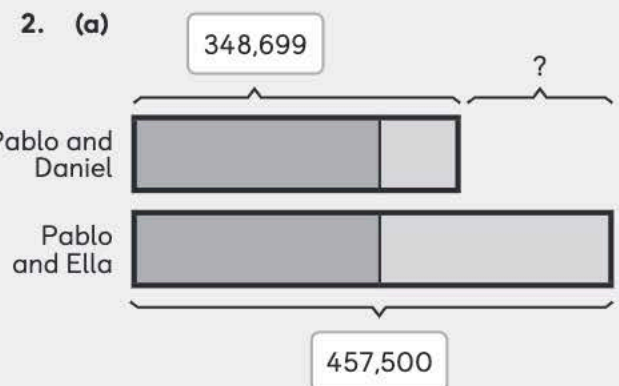
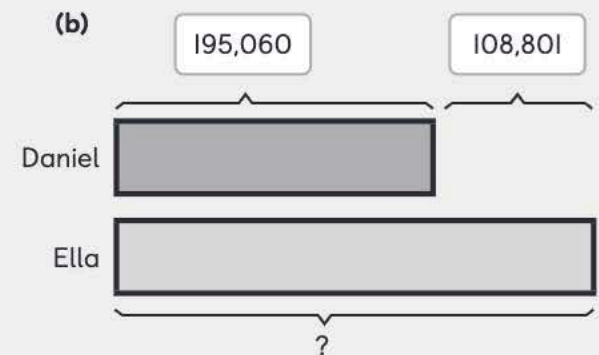## Learn Together Answers

(Student Book, pages 54 and 55)

I. (a)



86,285; +; 5,769; 92,054; 92,054

(b)



I07,60I; –; 92,054; I5,547; I5,547

2. (a)



457,500; –; 348,699; I08,80I; I08,80I

(b)



I95,060; +; I08,80I; 303,86I; 303,86I

# 3E Multiply a 2-Digit Number by a 1-Digit Number

**Learning Objective(s)**
- Multiply 2-digit numbers by 1-digit numbers without and with renaming.

**Material(s)**
- 1 number cube
- 1 set of place-value chips
- 1 copy of Grid Paper (TR06)

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**MULTIPLY A 2-DIGIT NUMBER BY A 1-DIGIT NUMBER**
(Student Book, pages 103 to 106)

### Lesson Opener

**Task** (Student Book, pages 103)

Show your student the **Lesson Opener** and cover the rest of the page. Discuss the question with your student. Do not show your student how to do the task and allow him/her to use place-value chips to represent the problem and solve with an equation.

Refer your student to **Learn** and **Learn Together** in the Student Book for reflection after your student has explored the concepts. Use questions to build understanding and direct instruction to refine understanding.

### Teaching Tip

Grid Paper (TR06) may help your student to draw an accurate area model and align the digits to multiply using the vertical algorithm model.

## Lesson Development
### Learn (Student Book, page 103)

Invite your student to represent 4 groups of 12 using place-value chips. Ask your student to combine the number of chips and record the product. Then, encourage your student to consider other ways to solve the problem. You may wish to ask these questions:

🗩 **How does this problem differ from the one in the previous lesson?** *This involves multiplying a 2-digit number that is not a multiple of 10 by a 1-digit number.* **What do you know about the problem?** *There are 4 equal groups of 12.* **How do you find the total number of markers?** *Add four 12s or multiply 4 and 12.* **How can place value help you solve the problem?** *I can think of 12 as 10 and 2.*

Encourage your student to draw an area model using place value to find the values of $4 \times 10$ and $4 \times 2$. Point out that the expanded form of 12 and the distributive property can be used to multiply each part. Then, use the partial products in the vertical algorithm to show how to multiply each digit. Record the multiplication of the ones and tens along the side and show how each product is recorded and added together.