Understand Missing Addends

LESSON 4

Dear Family,

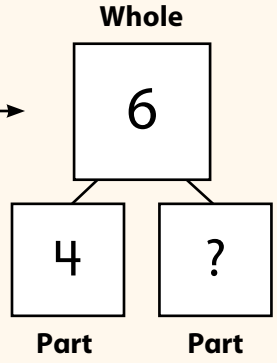
This week your child is exploring how to write a missing addend equation to solve a subtraction problem.

An addend is a number that is being added. Knowing how to use a missing addend **equation** to solve a subtraction problem will help your child understand the relationship between addition and subtraction.

Example:

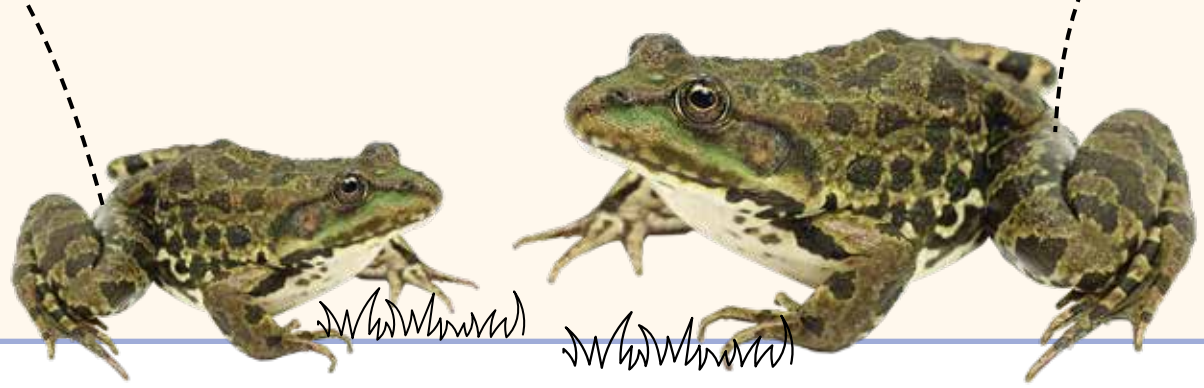
Write a missing addend equation to find $6 - 4$.

- Show $6 - 4$ in a number bond.
- Think about addition to help **subtract**. Use the number bond to write a missing addend equation: $4 + ? = 6$.
- Find the missing addend: $4 + 2 = 6$.



The **subtraction equation** is $6 - 4 = 2$.

Invite your child to share what he or she knows about using missing addend equations to solve subtraction problems by doing the following activity together.



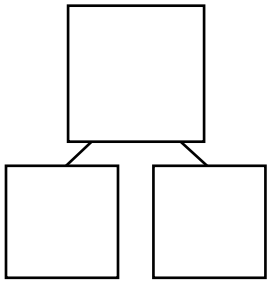
Activity Use Missing Addends

Do this activity with your child to explore missing addends.

Materials 20 small objects (such as buttons, paper clips, pasta shapes, or cereal pieces), paper, pencil

Draw a large number bond that covers a full sheet of paper. Help your child use the number bond to make a missing addend equation for solving each subtraction problem below.

Number Bond



- Use a missing addend equation to solve $7 - 4 =$ ____.
- Your child places 7 objects in the top box of the number bond and then moves 4 objects into one of the bottom boxes. Your child then moves the rest of the objects into the other bottom box.
- Help your child write a missing addend equation.

  $4 +$ ____ $= 7$
- Your child counts on or uses another method to find the missing addend and solve the subtraction problem.

  $4 +$ ____ $= 7$, so $7 - 4 =$ ____.
- Repeat to solve the other subtraction problems below.

$7 - 4 =$ _____ $\quad 8 - 6 =$ _____

$8 - 2 =$ _____ $\quad 5 - 4 =$ _____

$6 - 3 =$ _____ $\quad 7 - 5 =$ _____

Number Partners for 10

LESSON 5

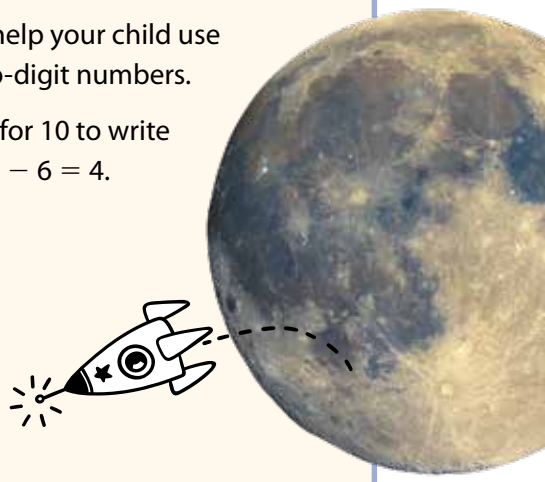
Dear Family,

This week your child is learning to find number partners for 10.

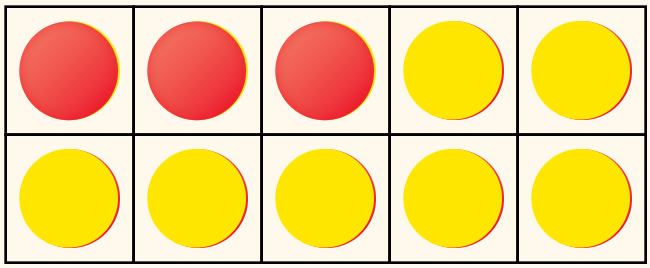
Your child will practice finding all the ways to make 10. This will help your child use multiple strategies for adding and subtracting one-digit and two-digit numbers.

Your child will use what he or she learns about number partners for 10 to write related addition and subtraction facts such as $6 + 4 = 10$ and $10 - 6 = 4$.

Partners for 10
- 1 and 9
- 2 and 8
- 3 and 7
- 4 and 6
- 5 and 5

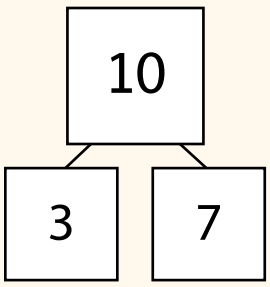


Adding counters of two different colors to a 10-frame is another way to show partners for 10.



$3 + 7 = 10$

Writing numbers in a number bond is one way to show partners for 10.



$3 + 7 = 10$

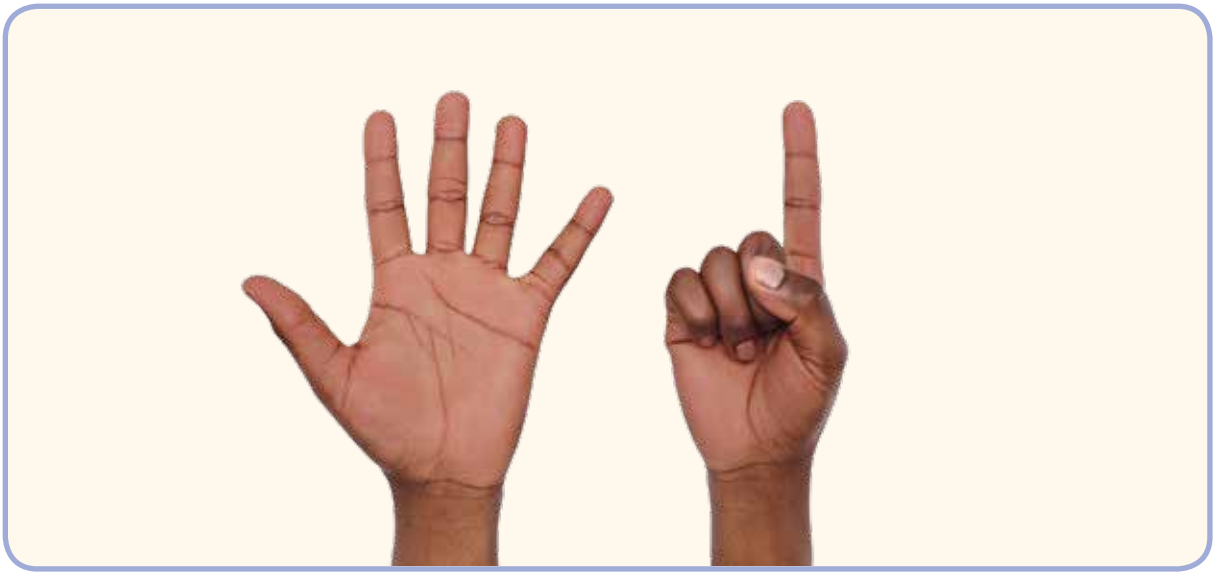
Invite your child to share what he or she knows about number partners for 10 by doing the following activity together.

Activity Number Partners for 10

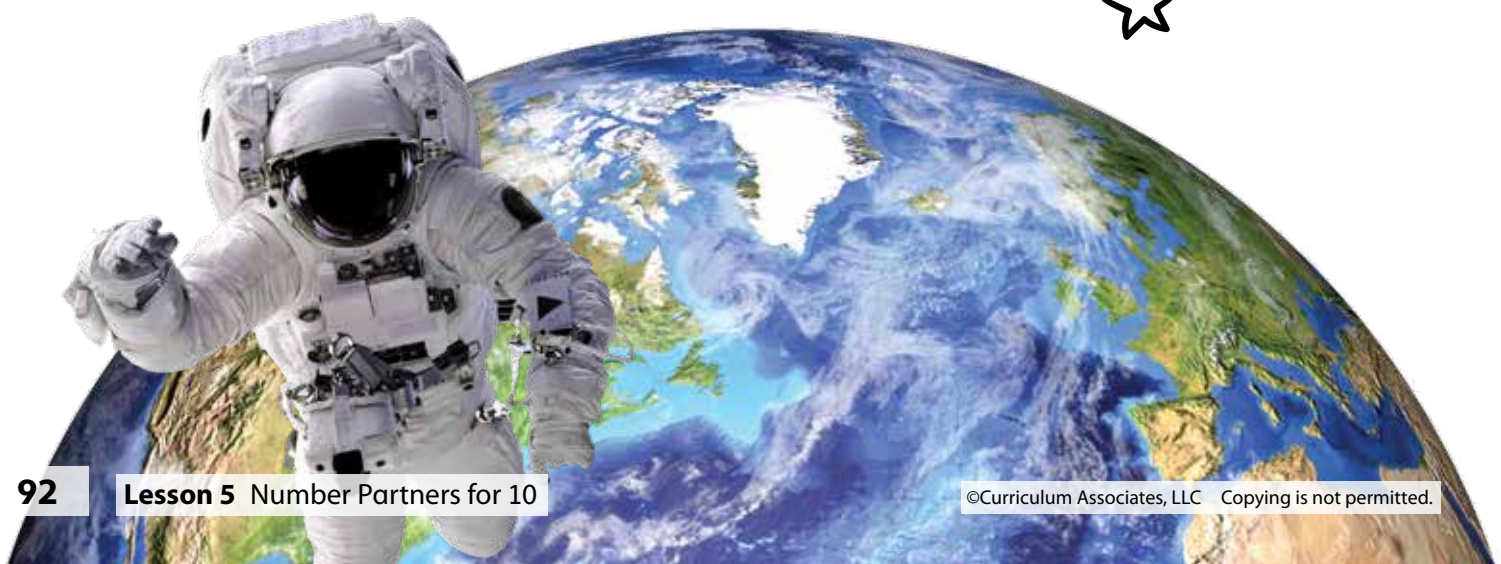
Do this activity with your child to explore number partners for 10.

Ask your child to hold up some fingers to show a number. Then ask your child to tell you the number partner that makes 10. Your child can find the number's partner by unfolding and counting his or her other fingers.

- Start by asking your child to show 6 fingers.
- Your child holds up 6 fingers.
- Ask how many more fingers are needed to make 10.
- Your child unfolds and counts his or her folded fingers one at a time: "1, 2, 3, 4."
- Your child then names the partners of 10: "6 and 4 make 10."



Repeat the activity until your child has named all the number partners for 10.



Use Strategies for Addition and Subtraction Facts

LESSON 10

Dear Family,

This week your child is learning strategies for quickly recalling addition and subtraction facts.

Your child will use addition tables to add numbers with totals up to 10. This will help your child think about patterns and strategies for finding an unknown addend or a total.

Below is part of an addition table.

4 + 1 5	4 + 2 6	4 + 3 7	4 + 4 8
5 + 1 6	5 + 2 ____	____ + 3 8	5 + ____ 9

The second addend increases by one, so the total increases by one.

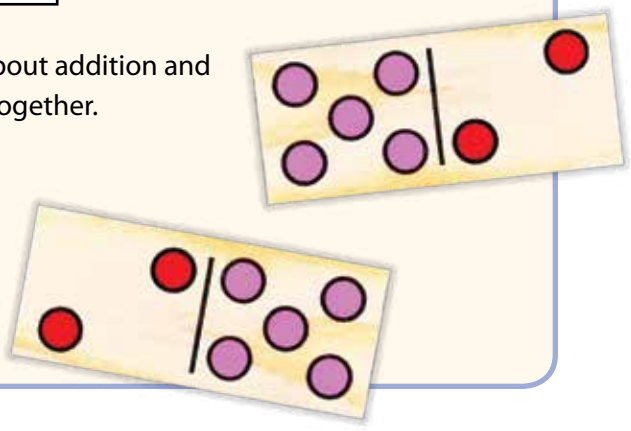
Knowing 5 + 4 = 9 means you can solve 9 − ____ = 5

Below is part of a table showing number partners.

Partners for 7	Partners for 8
0 + 7 = 7	0 + 8 = 8
1 + 6 = 7	____ + 7 = 8
2 + 5 = 7	2 + ____ = 8

Solving ____ + 7 = 8 can help you solve 8 − 7 = ____.

Invite your child to share what he or she knows about addition and subtraction facts by doing the following activity together.



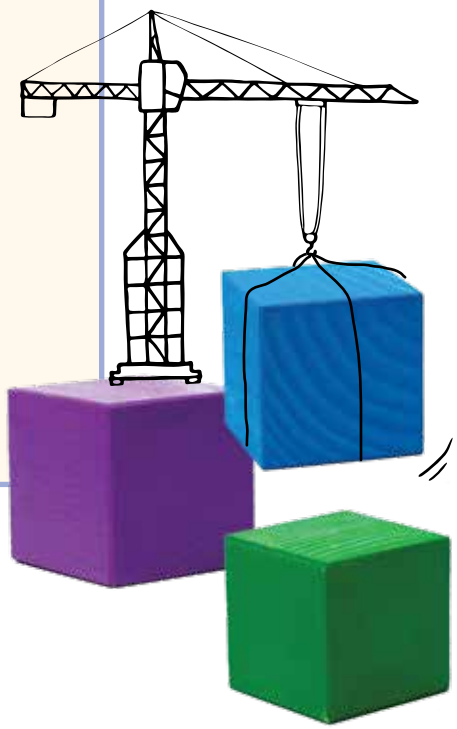
Activity Addition and Subtraction Facts

Do this activity with your child to explore using strategies for addition and subtraction facts.

Materials toy blocks, paper clips, or paper and pencil

Help your child see how practicing addition and subtraction facts can help him or her solve addition and subtraction problems quickly.

- Ask your child to solve addition problems that have totals up to 10. For example, you might ask your child to find $5 + 4$, $2 + 7$, or $9 + 1$.
- Each time your child solves a problem correctly, he or she places a block to build a tower. Encourage your child to see how tall the tower can get!
- Then start to build a new tower, this time asking your child to solve subtraction problems in which the first number is no greater than 10. For example, you might ask your child to find $8 - 4$, $10 - 2$, or $6 - 5$.
- Again, each time your child answers correctly, he or she adds a block to the tower.



If you do not have toy blocks or prefer to use different materials, you can have your child add to a paper clip chain or draw a checkmark each time he or she answers correctly. Your child can see how long the chain gets or how much he or she can fill the page.

Find the Unknown Number

LESSON 16

Dear Family,

This week your child is learning to use addition and subtraction strategies to find the missing number in an equation.

In class, your child will be solving mathematics mysteries.

Your child will be seeing addition and subtraction equations where one of the numbers is missing. Your child will need to figure out the unknown number using different addition and subtraction strategies that he or she has learned.

Below are examples of the types of problems your child will be solving.

$4 + \_\_\_\_ = 11$

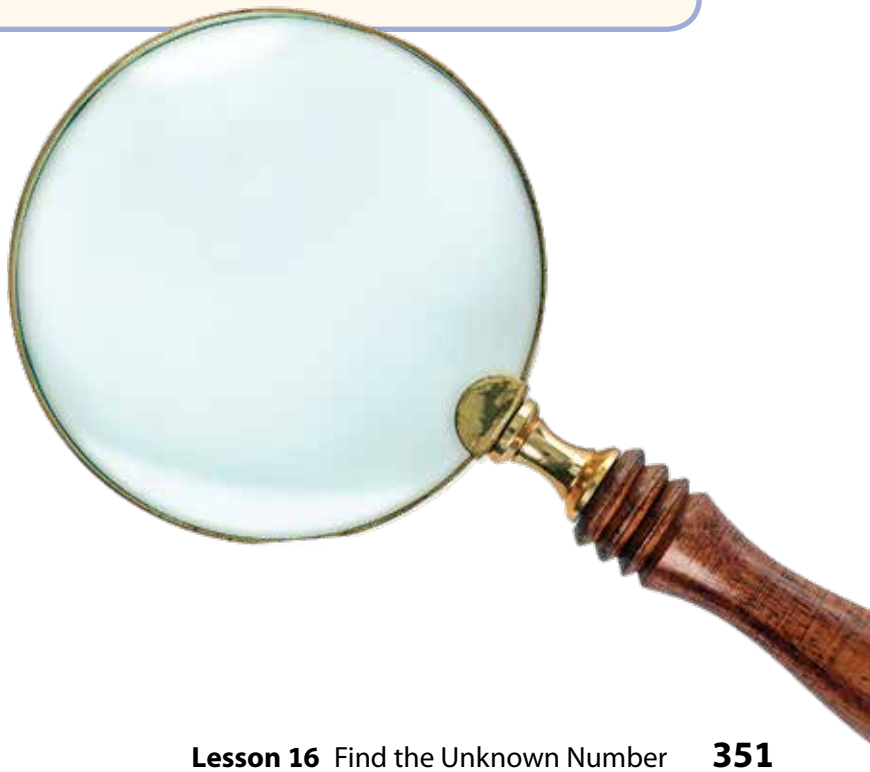
$15 - 7 = \_\_\_\_$

$\_\_\_\_ + 3 = 12$

$12 = ? + 8$

$9 - ? = 2$

Invite your child to share what he or she knows about finding the missing number in an equation by doing the following activity together.

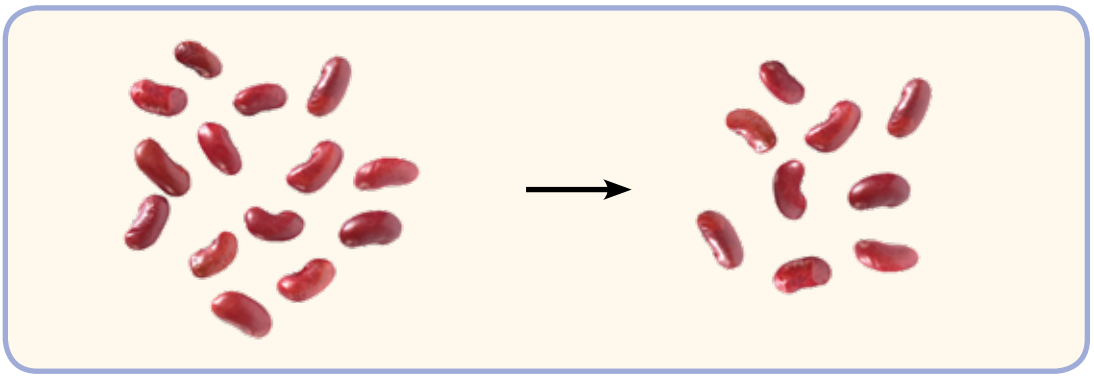


Activity Find the Unknown Number

Do this activity with your child to explore finding unknown numbers.

Materials 20 counters (beans, coins, or other small objects), paper and pencil

- Have your child count out 14 counters.
- Tell your child to close his or her eyes while you take away some counters.
- Remove 5 counters and hide them from sight.
- Count the remaining counters with your child and say: *Now there are 9 counters. How many counters did I take away?*
- Write the equation 14 − ____ = 9 and have your child use any strategy to figure out the number of counters you removed.
- Have your child write the missing number in the blank of the equation and then read the entire equation.



Repeat this activity, sometimes taking counters away from the starting group and sometimes adding counters to the starting group. Help your child write an addition or a subtraction equation to match each situation.

- Use these examples or make up your own:
  1. Start with 6 counters and add some to make a total of 14.
  2. Start with 9 counters and add some to make a total of 16.
  3. Start with 18 counters and take away some to make a total of 10.

Answers: **1. 6 + 8 = 14; 2. 9 + 7 = 16; 3. 18 − 8 = 10**

Word Problems to 20

LESSON 17

Dear Family,

This week your child is learning about using addition and subtraction strategies to solve different kinds of word problems.

Your child has learned different strategies for adding and subtracting numbers:

- Looking for familiar sums such as doubles
- Making a 10 to help with addition or subtraction
- Using a number path to count on or count back

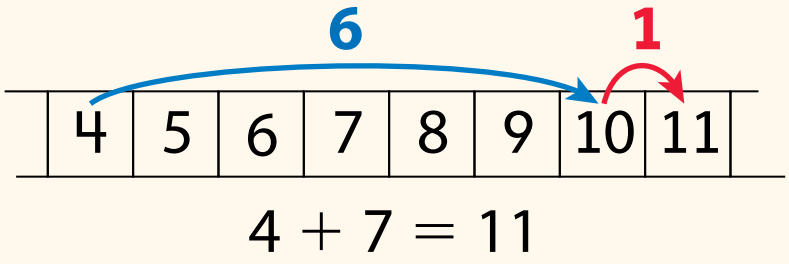
In this lesson, your child will solve word problems that involve addition or subtraction of numbers to 20. Word problems can be thought of as little stories that are missing a piece of information. Your child will practice understanding the story and deciding whether to add or subtract, relating that to an equation, and then choosing a strategy to solve the equation.

Consider the following problem.

Ben has 4 stamps. Tim gives him 7 more stamps.
How many stamps does Ben have now?

Decide: We need to add $4 + 7$.
Choose: We can use a number path to make a ten and solve the equation $4 + 7 = ?$

- Start at 4 and jump 6 spaces to 10.
- Now, jump 1 more space to add 7 in all.



$$4 + 7 = 11$$

Invite your child to share what he or she knows about solving word problems to 20 by doing the following activity together.

Activity Solving Word Problems to 20

Do this activity with your child to explore solving word problems to 20.

Materials various objects around your home

Look for opportunities around your home to make up and solve word problems with your child.

- **In the kitchen:** *There are 12 eggs in the carton. If our neighbor borrows 4, how many eggs will be left?*

- **In the bedroom:** *I see 6 stuffed animals on your bed. There are 12 under your bed. How many fewer stuffed animals are on your bed?*

- **At the dog park:** *There are 5 dogs at the dog park. More dogs join them. Now there are 13 dogs. How many more dogs join them?*

Look for other real-life opportunities to practice solving word problems with your child.