



Addition &

Subtraction

FAST FACTS

**Smart Strategies
for Basic Facts**


$$\begin{array}{r} 5 \\ +2 \\ \hline \end{array}$$
$$\begin{array}{r} 4 \\ +3 \\ \hline \end{array}$$
$$\begin{array}{r} 7 \\ +7 \\ \hline \end{array}$$
$$\begin{array}{r} 8 \\ +0 \\ \hline \end{array}$$
$$\begin{array}{r} 7 \\ +7 \\ \hline \end{array}$$
$$\begin{array}{r} 6 \\ +4 \\ \hline \end{array}$$
$$\begin{array}{r} 8 \\ -7 \\ \hline \end{array}$$
$$\begin{array}{r} 9 \\ -6 \\ \hline \end{array}$$
$$\begin{array}{r} 12 \\ -5 \\ \hline \end{array}$$
$$\begin{array}{r} 15 \\ -6 \\ \hline \end{array}$$
$$\begin{array}{r} 9 \\ -3 \\ \hline \end{array}$$

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Primary Concepts®

Publishers Note: The table of contents is linked to the lessons. If you click an entry, you will go to the page in the book. You can also use the pages on the left to navigate through the book.

The first book is Addition, Subtraction begins on page 96.

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Addition

Basic Facts

STRATEGY

Counting On

Manipulatives

- Counting Chips

Warm-Ups

I'll name a number. You count on from there to ten.

5... (6, 7, 8, 9, 10)

8...

3...

6...

2...

Understanding Counting On

Here, students are introduced to the seemingly revolutionary idea that you don't need to count from zero to find a total.

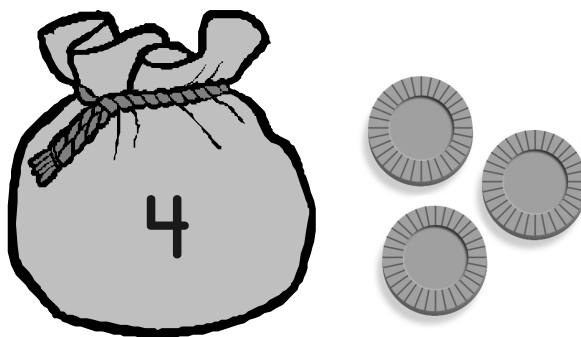
Introducing the Strategy

1 Display the problem $5 + 3$ on the overhead projector or chalkboard. Use Counting Chips to model the problem, setting out a group of five chips and a group of three chips. Have students do likewise with their own Counting Chips, then ask them to count the total.

2 *Let me show you an easier and faster way to count these chips.* Indicate the group of five chips. *We know there are five here, right? So why count them up again from zero? Why don't we just say "five," then count the other group of chips from there? So we say, "5...6, 7, 8."* Place your hand over the group of five when the class says "five," then point to each of the remaining three chips in turn as they say "six, seven, eight."

3 Practice this strategy several more times with problems such as $4 + 2$, $2 + 3$, and $4 + 3$. Each time have the children set out two groups of counters, then count on from the first group of counters to the total. Exaggerating the first number a bit and drawing it out (5...6, 7, 8) helps some children transition to this new way of counting, helping them hear the first number as a group or running total before counting on from there.

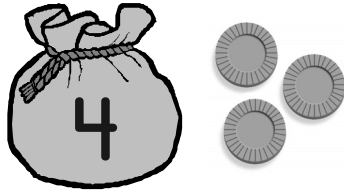
4 Draw a simple drawstring bag for the children to see. Label the bag 4. Next to the bag, draw 3 counters. *Imagine we have four counters in this bag, and we want to add three more. Let's count on from four. 4...5, 6, 7. Seven all together.* This way of picturing the process of counting on gives children a handy mental image to use. Have students practice the strategy of counting on with the worksheet on the next page.



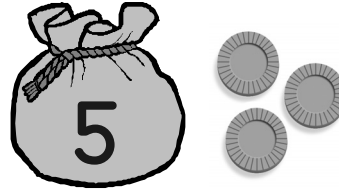
Name _____

Understanding Counting On

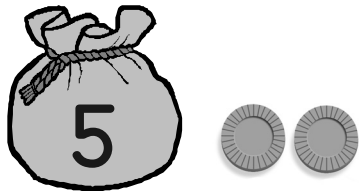
Solve the problems below by counting on from the number in the bag.



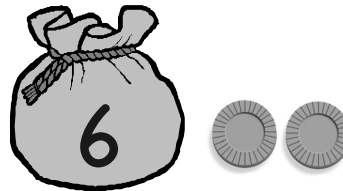
$$4 + 3 = \underline{7}$$



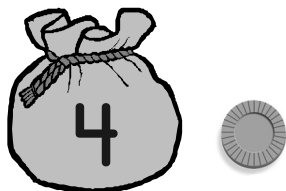
$$5 + 3 = \underline{\quad}$$



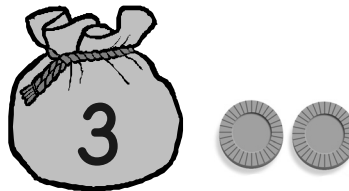
$$5 + 2 = \underline{\quad}$$



$$6 + 2 = \underline{\quad}$$



$$4 + 1 = \underline{\quad}$$



$$3 + 2 = \underline{\quad}$$



$$7 + 2 = \underline{\quad}$$



$$5 + 1 = \underline{\quad}$$

STRATEGY

Counting On

Warm-Ups

I'll say two numbers. You tell me which is the larger.

5 or 1 (5)

3 or 7

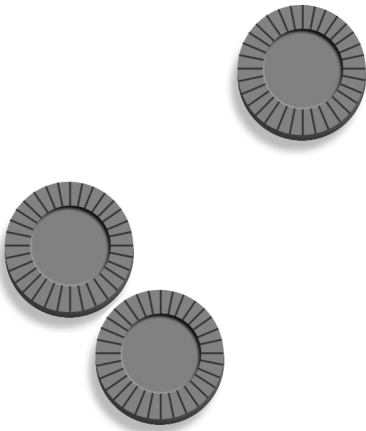
2 or 3

7 or 4

0 or 6

7 or 8

9 or 3



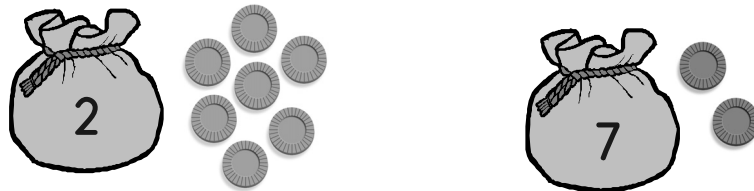
Think Big!

Children find that when using the technique of counting on to find the total of two sets, it's most efficient to start with the larger number.

Introducing the Strategy

1 Remind the class of their recent introduction to the technique of counting on. *When we're trying to find out how many all together, we don't need to start counting from one. We can count on from one of the groups.*

2 Show the drawings below on the overhead projector or chalkboard and ask, *Which of these problems would be faster to count?* Children are likely to realize that the problem on the right would be faster because there are fewer chips to count. Point out that the problems are actually the same. Each asks children to find the total of 7 and 2. *You're right, though. It's better to count on from the bigger number—7...8, 9.* Remember, exaggerating the first number word a bit and drawing it out as you indicate the "bag" helps children hear the first number as a group or running total before counting on from there.



3 *Let's practice counting on from the larger number.* Write the following addition problems on the overhead or chalkboard and have students tell you which is the larger number—which it would be faster to count on from.

$2+4$

$5+3$

$4+1$


$2+5$

For each problem, draw a bag labeled with the number the children identify as larger, then draw counters to represent the other number. Together count the total, emphasizing and drawing out the first number word, then pointing to each of the "counters" as the group counts on to the total.

Name _____

Think Big!

Circle the larger number and label a bag with that number. Draw counters to show the other number. Count on to find the answer.

$$\begin{array}{r} \textcircled{4} \\ +2 \\ \hline 6 \end{array}$$


$$\begin{array}{r} 3 \\ +5 \\ \hline \end{array}$$

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

$$\begin{array}{r} 2 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +4 \\ \hline \end{array}$$