Lesson 18

Materials
index cards

Books
Calvert Math
Practice

Student Assignments
☐ MATHEMATICS
___Complete Warm-up activity
___Read pp. 57 and 59, *Calvert Math*
___Complete sample problems, pp. 57 and 59, *Calvert Math*
___Complete **Practice** 1–6 and **Mixed Review** 7–10, p. 58, Calvert Math
___Complete **Practice** 1–9 and **Test Prep** 10, p. 60, *Calvert Math*
___Complete **Practice 28** and **Practice 29**, *Practice*

Objectives: to use the grouping principle when adding three addends; to use the grouping principle to check a sum

Notes

Warm-up: Give your student an opportunity to review vocabulary by assigning the following exercise. Write the words from the word bank on index cards for your student. Ask your student the questions shown and have him choose the correct index card.

Numbers that are added are called_____. (addends)

The answer to an addition problem is called the _____. (sum)

3 + 3 is the example of a _____. (double fact)

The _____ lets you know that 9 + 1 gives the same answer as 1 + 9. (order property)

First, second, and third are examples of _____ numbers. (ordinal)

Word Bank

sum	ordinal	
addends	Order Property	doubles fact

You may want to use these cards for future review. If so, write the definition of each word on the back of its index card.

Skill Development: Tell your student that in this lesson he will use the addition facts he has learned throughout the chapter to add three numbers together. Numbers being added together are called *addends*. Tell your student that you want to solve the following problem.

$$\begin{array}{r} 8 \\ 2 \\ +\ 5 \\ \hline \end{array}$$

Notes

Explain to your student that you will first add two of the numbers together (8 + 2 = 10). Then add that sum to the third number (10 + 5 = 15). This means that 8 + 2 + 5 = 15.

Explain to your student that he can add any two of the three numbers first without changing the answer. For example, in the same problem, first add 2 + 5 (7). Then add that sum to the third number (8 + 7). The answer is still 15.

Work with your student to solve 3 + 5 + 8. First add 3 + 5 (8). Then add 8 + 8. This means that 3 + 5 + 8 = 16.

With your student, read pp. 57 and 59 in ***Calvert Math*** and complete the sample problems before assigning the **Practice** section.

Practice: Complete **Practice** 1–6 and **Mixed Review** 7–10 on p. 58 and **Practice** 1–9 and **Test Prep** 10 on p. 60 in ***Calvert Math***. Complete **Practice 28:** *Adding 3 Addends* and **Practice 29:** *More Adding 3 Addends* in ***Practice***.

Looking Forward: For the next lesson, you will need four highlighters of different colors.

Note: The Associative Property of Addition says that when you add three numbers, you can add any two of them first, and then add the third, as your student saw in this lesson. Tell your student the name of this property. He may wish to find the definitions of *associative* or its root, *associate*, in the dictionary. Discuss how these words describe the way we group addends when adding three or more. Explain that the Associative Property is sometimes called the Grouping Property.

Name _____

2.8 Adding 3 Addends

Objective: to use the grouping principle when adding 3 addends

Jill and Mark added 3, 6, and 4 in different ways.
They both started with a fact they knew. Did they find the same sum?

Jill knew that
$3 + 6 = 9$.
Then she added
$9 + 4$.

$$\begin{array}{r} 3 \\ 6 \\ +\ 4 \\ \hline 13 \end{array} \quad 3 + 6 \rightarrow 9$$

Mark knew that
$6 + 4 = 10$.
Then he added
$3 + 10$.

$$\begin{array}{r} 3 \\ 6 \\ +\ 4 \\ \hline 13 \end{array} \quad 6 + 4 \rightarrow 10$$

Remember: You can group the numbers differently and get the same sum.

Susie bought 5 bananas, 4 peaches, and 5 pears. How many pieces of fruit did Susie buy in all?

$5 + 4 + 5$

10

Start with a fact you know: $5 + 5 = 10$
Then add 4: $10 + 4 = 14$

$10 + 4 =$ ____ Susie bought ____ pieces of fruit.

Start with a fact you know. Add.

A $2 + 4 + 7 = 13$

9

B $2 + 4 + 7 =$ ____

____

G

$$\begin{array}{r} 4 \\ 5 \\ +\ 2 \\ \hline 11 \end{array} \quad 5 + 2 \rightarrow \text{____}$$

$$\begin{array}{r} 4 \\ 5 \\ +\ 2 \\ \hline \end{array} \quad 5 \rightarrow \text{____}$$

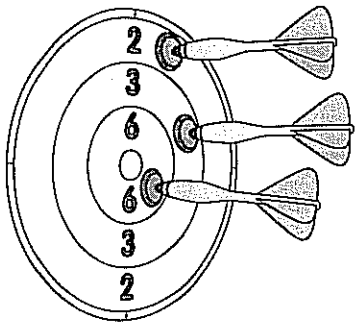
$$\begin{array}{r} 4 \\ 5 \\ +\ 2 \\ \hline \end{array} \quad 5 + 2 \rightarrow \text{____}$$

Name _____

2.9 More Adding 3 Addends

Objective: to use the grouping property to check a sum

Jack is playing darts. He adds to find his score.



Jack knows that $2 + 3 = 5$. Then he adds 6. $5 + 6 = 11$

$$\begin{array}{r} 2 \\ 3 \\ +\ 6 \\ \hline \vdots \end{array} \quad 5$$

To check his answer, Jack groups the numbers differently. He adds $3 + 6 = 9$, then $2 + 9 = 11$.

$$\begin{array}{r} 2 \\ 3 \\ +\ 6 \\ \hline \vdots \end{array} \quad 9$$

Jack gets the same sum!

Add. Write the sum.

A

$$\begin{array}{r} 7 \\ 5 \\ +\ 2 \\ \hline \vdots \end{array} \quad 9$$

$$\begin{array}{r} 7 \\ 5 \\ +\ 2 \\ \hline \end{array} \quad \_\_\_$$

$$\begin{array}{r} 7 \\ 5 \\ +\ 2 \\ \hline \end{array} \quad \_\_\_$$

B

$$\begin{array}{r} 3 \\ 5 \\ +\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ 5 \\ +\ 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ 0 \\ +\ 9 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ 0 \\ +\ 9 \\ \hline \end{array}$$

Name _____ Practice 28

Adding 3 Addends

Start with a fact you know. Find the sum.

1. $\begin{array}{r} 5 \\ 3 \\ +\ 1 \end{array}$ 6 $\quad$ $\begin{array}{r} 4 \\ 5 \\ +\ 2 \end{array}$ 9 $\quad$ $\begin{array}{r} 4 \\ 5 \\ +\ 2 \end{array}$ 7

$5 + 1 = 6$ $6 + 3 =$ ____	$4 + 5 = 9$ $9 + 2 =$ ____	$5 + 2 = 7$ $7 + 4 =$ ____

Add.

2. $\begin{array}{r} 2 \\ 1 \\ +\ 2 \end{array}$ $\quad$ $\begin{array}{r} 3 \\ 4 \\ +\ 4 \end{array}$ $\quad$ $\begin{array}{r} 8 \\ 3 \\ +\ 5 \end{array}$ $\quad$ $\begin{array}{r} 3 \\ 3 \\ +\ 1 \end{array}$ $\quad$ $\begin{array}{r} 4 \\ 5 \\ +\ 6 \end{array}$

3. $\begin{array}{r} 9 \\ 5 \\ +\ 2 \end{array}$ $\quad$ $\begin{array}{r} 8 \\ 6 \\ +\ 1 \end{array}$ $\quad$ $\begin{array}{r} 6 \\ 5 \\ +\ 2 \end{array}$ $\quad$ $\begin{array}{r} 5 \\ 4 \\ +\ 5 \end{array}$ $\quad$ $\begin{array}{r} 7 \\ 4 \\ +\ 3 \end{array}$

4. $6 + 7 + 6 =$ ____

5. $1 + 8 + 9 =$ ____

Solve.

6. The sum of three numbers is 12. What is the missing number?

5	+		+	5	=	12

Name _____ Practice 29

More Adding 3 Addends

Add.

1

9	7	8	1	5
3	2	7	9	10
+ 5	+ 4	+ 3	+ 6	+ 0

Solve.

2 Jorge buys 5 tulips, 8 daisies, and 2 roses. How many flowers does Jorge buy in all?

5 + 8 + 2 = _____

_____ flowers

3 Teddy scored 9 goals, Will scored 5 goals, and Brianna scored 2 goals. How many goals did they score altogether?

9 + _____ + _____ = _____

_____ goals

4 Elise needs to make 12 cookies for a party. She made 4 sugar cookies, 5 chocolate cookies, and 2 peanut butter cookies. Did she make enough?

_____ + _____ + _____ = _____

_____ cookies

Did she make enough? yes no