

Overview of Skill

The number family 3, 5, 15 becomes $5 \times 3 = 15$,

$3 \times 5 = 15$, , and .

Another way in which *Corrective Mathematics* shows the relationship among various facts is through **fact series** exercises. Facts are presented in order, to show their relationship to counting. For example, in the series $6 + 1 = 7$, $6 + 2 = 8$, and $6 + 3 = 9$, every time a number is counted in the second addend (1, 2, 3), the number is counted in the sum (7, 8, 9). By teaching fact relationships, individual facts are easier to master and recall. Here are sample fact series from each of the four modules:

Here is an example of a story problem with two verbs that distract, that are irrelevant to the operation (*built, rode*).

261 teachers went swimming. 493 students built forts. 97 parents went swimming. 135 students rode bikes. 2580 children went swimming. How many people went swimming?

Although students learn in the *Subtraction* module that certain verbs generally indicate whether to add (*find, get, buy*) or subtract (*lose, give away, break*), they quickly learn that they cannot rely solely on the verb to determine the appropriate operation. For example, the following problem calls for addition, even though *give away* would seemingly call for subtraction.

Bill gives away 4 toys. John gives away 2 toys. How many toys did the boys give away?

Because using the verb to determine whether addition or subtraction is called for is not a viable strategy for many story problems, the *Subtraction* module quickly teaches this discrimination strategy: If the problem gives the big number, it's a subtraction problem; if the problem does not give the big number, it's an addition problem. (The "big number" is the minuend in a subtraction problem and the sum in an addition problem.) The strategy is illustrated by the following problems.

Mr. Yamada had 36 books. Last week he bought more books at the used bookstore. Now he has 58 books. How many books did he buy last week?

In this problem, the big number, 58, is given. Therefore, the problem is a subtraction problem and translates into

$$\begin{array}{r} 58 \\ - 36 \\ \hline \end{array}$$

In the second problem, the big number (how many windows in all) is not given.

An office building has 2365 clean windows. The window washers have to wash 90 dirty windows. How many windows in all does the building have?

Therefore, the problem is an addition problem and translates into

In the *Multiplication* module, the students are taught that "if you use the same number again and again, you multiply."

There are 9 alarm clocks, 9 wall clocks, and 9 grandfather clocks in the shop. How many clocks are there in all?

In this problem, the same number is used again and again, so you multiply.

Scope and Sequence Chart

Multiplication

	1	5	10	15	20	25	30	35	40	45	50	55	60	65
Facts														
Determine the product of two 1-digit numbers.	[Teach]													
Write two multiplication facts for any two 1-digit numbers.	[Teach]													
Say a series of consecutively ordered facts. For example, $5 \times 5 = 25$; $5 \times 6 = 30$.		[Teach]												
Determine the sum of a 2-digit number and a 1-digit number.		[Teach]												
Determine the product of two 1-digit numbers, one of which is zero.														
Place Value														
Say the number for a 3-digit numeral.		[Teach]												
Say the number in each column of a 2-digit number.			[Teach]											
Say the number for a 4-digit numeral.			[Teach]											
Say the number for a 5-digit numeral.														
Operations														
Determine the product of a 2- or 3-digit number and a 1-digit number. No regrouping required.														
Determine the product of a 2-digit number and a 1-digit number. Regrouping required.														
Determine the product of a 3-digit number and a 1-digit number. Regrouping required for two columns.														
Determine the product of two 2-digit numbers.														
Determine the product of a 2-digit number and a 3-digit number.														
Determine the product of a 2-digit number and a 1-digit number. The multiplier has a zero in the ones column.														
Story Problems														
Determine the product or sum in a story problem with two 1-digit numbers.														
Determine the product or sum in a story problem with a 2- or 3-digit number and a 1-digit number.														
Determine the product, sum, or difference in a story problem with a 2- or 3-digit number and a 1-digit number.														
Determine the product, sum, or difference in a story problem with a 2-digit number and a 2- or 3-digit number.														

Key: Teach [Blue bar]

Review [Black bar]

Scope and Sequence Chart

Division

1 5 10 15 20 25 30 35 40 45 50 55 60 65

	1	5	10	15	20	25	30	35	40	45	50	55	60	65
Facts Write two division facts for any given 1- or 2-digit dividend and a 1-digit divisor.	[Teach]													
Determine the 1-digit quotient of a 1- or 2-digit dividend and a 1-digit divisor.	[Teach]													
Say a series of consecutively ordered facts. For example, $5\overline{)5}$, $5\overline{)10}$, $5\overline{)15}$.	[Teach]													
Place Value Determine the approximation of a 2-digit number to the nearest ten.	[Review]													
Determine the approximation of a 3-digit number to the nearest hundred.	[Review]													
Operations Determine the 1-digit quotient and remainder, if any, resulting from the division of a 1- or 2-digit number by a 1-digit number.	[Teach]													
Determine the 2-digit quotient and remainder, if any, resulting from the division of a 2- or 3-digit number by a 1-digit number.	[Review]													
Determine the 3-digit quotient and remainder, if any, resulting from the division of a 3- or 4-digit number by a 1-digit number.	[Review]													
Determine the 2- or 3-digit quotient and remainder, if any, resulting from the division of a 3- or 4-digit number by a 1-digit number. Quotient has a zero in the tens and/or hundreds column.	[Review]													
Determine the 4-digit quotient and remainder, if any, resulting from the division of a 4-digit number by a 1-digit number.	[Review]													
Determine the 1- or 2-digit quotient and remainder, if any, resulting from the division of a 2- or 3-digit number by a 2-digit number.	[Review]													
Determine the 3-digit quotient and remainder, if any, resulting from the division of a 4-digit number by a 2-digit number.	[Review]													
Story Problems Determine the quotient or product of 2 numbers in a story problem.	[Teach]													
Determine the sum or difference of 2 numbers in a story problem.	[Review]													
Determine the quotient, product, sum, or difference of 2 numbers in a story problem.	[Review]													

Key: Teach [Teach bar]

Review [Review bar]