

Unit 14 – Multiplication

Chapter 1 – Adding Equal Groups

Addition and subtraction can be interpreted in terms of part and whole. When a whole is made up of two parts, we add to find the whole given the two parts. We subtract to find one part given the whole and the other part.

The part-whole concepts of addition and subtraction can be extended to multiplication and division when the whole is made up of multiple equal parts. We multiply to find the whole given the number of parts and the number in each part. We divide to find the number in each part given the whole and the number of parts. We also divide to find the number of parts given the whole and the number in each part.

Multiplication means putting together equal groups. In this section, students will learn to recognize equal groups. They will count the number of groups and the number in each group. Then they will find the total number in the groups by repeated addition. In this unit, multiplication and division will be within 40. Students should use mental math to do the repeated addition, not simply count on. For example, they should be able to add $4 + 4 + 4 + 4$ by thinking “4 and 4 is 8, 8 and 4 is 12, 12 and 4 is 16” or simply “4, 8, 12, 16” adding 4 mentally each time.

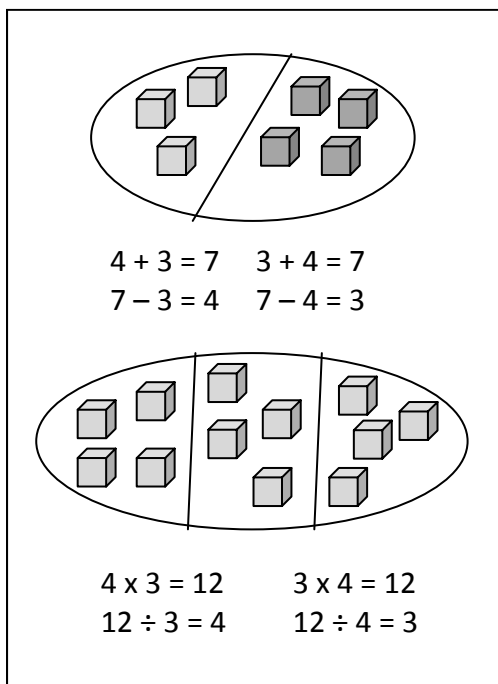
Students will not be memorizing multiplication facts until *Primary Mathematics 2*. They learned “skip counting” by 2’s in the last chapter. If you want to teach them “skip counting” by 3 and 4 through memorization, you can, but that will be taught in *Primary Mathematics 2*, and continued practice in mental math through repeated addition is beneficial at this stage. Skip counting by 5 is easy to learn, though, and will be covered in unit 19 since it is helpful in counting coins.

Material

Counters

Multilink cubes

Paper plates or bowls (for groups)



The diagram consists of two parts. The top part shows an oval divided into two sections by a diagonal line. The left section contains 4 small cubes, and the right section contains 3 small cubes. Below this, the following equations are listed:

$$4 + 3 = 7 \quad 3 + 4 = 7$$

$$7 - 3 = 4 \quad 7 - 4 = 3$$

The bottom part shows an oval divided into three equal sections by two vertical lines. Each section contains 4 small cubes. Below this, the following equations are listed:

$$4 \times 3 = 12 \quad 3 \times 4 = 12$$

$$12 \div 3 = 4 \quad 12 \div 4 = 3$$