

### Part 3 – Addition Within 100

In unit 3 (Numbers to 40) students learned to add a 1-digit number to a 2-digit number with or without renaming. This is reviewed here and extended to numbers within 100.

Students should recognize when adding a 1-digit number to another number will increase the tens, that is, whether the sum of the ones is greater than ten. They can add either by recalling the addition fact, or by using the “make 10” strategy.

When the 1-digit number is 1, 2, or 3, they may add by counting on by ones.

When the 2-digit number is tens, they can simply write the answer using place-value concept.

In this section, students will learn a new skill, adding a 2-digit number to a 2-digit number.

First they will learn to add tens.

Then they will add a 2-digit number by simply adding the tens first, then adding the ones.

You can draw arrow diagrams to illustrate the process. Remind your student that addition can be done in any order, and encourage her to add the smaller number to the larger.

The formal algorithm for adding numbers, in which the numbers are written in vertical form, aligning the place-values, and starting by adding the ones in the ones column and then the tens in the tens column, renaming if necessary, will be taught in *Primary Mathematics 2A*. You may want to show

$$67 + 8 = 60 + 15 = 75$$

$$\begin{array}{r} / \backslash \\ 60 \quad 7 \end{array}$$

$$67 + 8 = 70 + 5 = 75$$

$$\begin{array}{r} / \backslash \\ 3 \quad 5 \end{array}$$

$$68 + 3 = 71$$

$$69, 70, 71$$

$$30 + 60 = 90$$

$$(3 + 6 = 9, 3 \text{ tens} + 6 \text{ tens} = 9 \text{ tens})$$

$$32 + 60 = 92$$

$$\begin{array}{r} / \backslash \\ 2 \quad 30 \end{array}$$

$$32 + 64 = 64 + 32 = 96$$

$$\begin{array}{r} / \backslash \\ 30 \quad 2 \\ + 30 \quad + 2 \\ 64 \longrightarrow 94 \longrightarrow 96 \end{array}$$

$$57 + 24 = 57 + 24 = 77 + 4 = 81$$

$$\begin{array}{r} / \backslash \\ 20 \quad 4 \\ + 20 \quad + 4 \\ 57 \longrightarrow 77 \longrightarrow 81 \end{array}$$