

## Answers to Practice Exercises for Chapter 7 – The Four Rules for Larger Numbers

### Set A - Question 7

Lay it out like this.

$$\begin{array}{r} 2\ 1\ 4\ 1 \\ \underline{\quad 8\ 8\ 6} \\ \hline \end{array}$$

#### Decomposition Method

First subtract the units column.  $1 - 6$  won't give a positive answer, so take one of the 4 tens, leaving 3 and the 1 unit becomes 11 units.

Then,  $11 - 6 = 5$ .

$$\begin{array}{r} 2\ 1\ 4^3\ 1^1 \\ \underline{\quad 8\ 8\ 6} \\ \hline \quad 5 \end{array}$$

Now subtract the tens column.  $3 - 8$  won't give a positive answer, so take the 1 hundred, leaving 0 and the 3 tens becomes 13. Then  $13 - 8 = 5$ .

$$\begin{array}{r} 2\ 1^0\ 4^{13}\ 1^1 \\ \underline{\quad 8\ 8\ 6} \\ \hline \quad 5\ 5 \end{array}$$

Now subtract the hundreds column.  $0 - 8$  won't give a positive answer, so take one of the 2 thousands leaving 1, and the 0 in the hundreds becomes 10.

Then  $10 - 8 = 2$ , and  $1 - \text{nothing} = 1$ .

$$\begin{array}{r} 2^1\ 1^1\ 4^{10}\ 1^1 \\ \underline{\quad 8\ 8\ 6} \\ \hline 1\ 2\ 5\ 5 \end{array}$$

#### Equal Additions Method

First subtract the units column.  $1 - 6$  won't give a positive answer, so add 1 to the 8 in the tens making 9, and add 10 to the 1 unit making 11. Then,  $11 - 6 = 5$ .

$$\begin{array}{r} 2\ 1\ 4\ 1^1 \\ \underline{\quad 8\ 8^9\ 6} \\ \hline \quad 5 \end{array}$$

Now subtract the tens column.  $4 - 9$  also won't give a positive answer, so add 1 to the 8 in the hundreds making 9, and add 10 to the 4 in the tens making 14.

Then,  $14 - 9 = 5$

$$\begin{array}{r} 2\ 1\ 1^4\ 1^1 \\ \underline{\quad 8^9\ 8^9\ 6} \\ \hline \quad 5\ 5 \end{array}$$

Now subtract the hundreds column.  $1 - 9$  also won't give a positive answer, so replace nothing in the thousands with 1, and add 10 to the 1 in the hundreds making 11.

Then,  $11 - 9 = 2$  and also  $2 - 1 = 1$

$$\begin{array}{r} 2\ 1^1\ 1^4\ 1^1 \\ \underline{\quad 1^1\ 8^9\ 8^9\ 6} \\ \hline 1\ 2\ 5\ 5 \end{array}$$