

NSL1260 Exam Notes

Maths

Place Value

Any number can be made using a combination of the digits 1-9 and 0. The size of a number is determined by the digit themselves and their place value.

Standard form: 25 Expanded form: 20+5

Addition

Addition is the process of combining (or adding) numbers to get their sum. The commutative property states that the order in which two numbers are added does not affect their sum.

Align the numbers to be added in vertical columns according to their place values. Add the numbers in each vertical column, beginning with the right hand column. Write down the units digit of our sum and carry the tens digit if the column adds to 10 or more.

$$\begin{array}{r} 43 \\ +21 \\ \hline 64 \end{array}$$

Subtraction

Subtraction is the process of finding the difference between two numbers. The commutative property does not hold for subtraction.

Align the numbers vertically according to their place values, with the larger number on top. Beginning with the right hand column, subtract the bottom number from the top number in each vertical column, exchanging or regrouping if necessary. Write down the single digit answer and move on to the next column on the left.

$$\begin{array}{r} 52 \\ -24 \\ \hline 28 \end{array}$$

Multiplication

Multiplication is the process of repeated addition. When two numbers are multiplied, the answer is called the product. The commutative property states the order in which two numbers are multiplied does not affect their product.

Align the numbers in line with their place values, placing the larger number on top. Multiply each of the digits of the top number (beginning with the units digit and proceeding to the left) by the units digit of the bottom number, writing down the units digit of the product and carrying where necessary. Repeat the procedure for the 10s digit of the bottom number, then the 100s digit etc., including an appropriate number of placeholder zeroes. Add together all of the partial products to get the final answer.

$$\begin{array}{r} 432 \\ \times 14 \\ \hline \end{array}$$