(3) How to convert from binary, octal or hexadecimal to decimal:

- Put the place values (in decimal) under each of the positions in the number you are converting from
- Multiple the value of the digit in each position by the decimal place value of that position and add the results.
- The sum is the number in decimal

(3) How to convert from decimal to binary, octal, or hexadecimal:

- Lay out a grid of place values (in decimal) for the number system you are converting to starting with position 1 all of the way to the right and continuing back to the left as far as needed until you reach a point where the next place value is bigger than the number you are converting to
- Starting with the leftmost position, take as many of that position as you can. Subtract from the original decimal number the quantity that you have already represented (value*position) to see how much you have left to represent.
- Move one position to the right and repeat the above step.
- Stop when you have represented all of the original decimal number or you have moved all of the way to the right.

(2) How to convert from octal to binary or from binary to octal:

- Make use of the fact that every octal digit does the work of three binary digits and visa-versa.

(2) How to convert from hexadecimal to binary or from binary to hexadecimal:

- Make use of the fact that every hexadecimal digit does the work of four binary digits and visa-versa.

(2) How to convert from hexadecimal to octal or from octal to hexadecimal:

- Go through binary