## Conversion by Inspection

Conversion between binary and hexadecimal can be done by inspection since each hexadecimal digit corresponds to exactly four binary digits (bits).

$$10011101. \ 010111_2 = 9D. \ 5C_{16}$$
 Conversion between binary to octal can be done by inspection, except each

octal digit corresponds to three binary digits, instead of four.  $100101101011010_{2} = 45,532_{8}$