

5.  $177_{10}$

$$\begin{array}{r} 177/2 = 88 \text{ R}1 \\ 88/2 = 44 \text{ R}0 \\ 44/2 = 22 \text{ R}0 \\ 22/2 = 11 \text{ R}0 \\ 11/2 = 5 \text{ R}1 \\ 5/2 = 2 \text{ R}1 \\ 2/2 = 1 \text{ R}0 \\ 1/2 = 0 \text{ R}1 \end{array} = \boxed{10110001_2}$$

6.  $245_{10}$

$$\begin{array}{r} 245/2 = 122 \text{ R}1 \\ 122/2 = 61 \text{ R}0 \\ 61/2 = 30 \text{ R}1 \\ 30/2 = 15 \text{ R}0 \\ 15/2 = 7 \text{ R}1 \\ 7/2 = 3 \text{ R}1 \\ 3/2 = 1 \text{ R}1 \\ 1/2 = 0 \text{ R}1 \end{array} = \boxed{11110101_2}$$

Convert the following binary numbers to decimal

7.  $11100001_2 = 1 \cdot 2^7 + 1 \cdot 2^6 + 1 \cdot 2^5 + 0 \cdot 2^4 + 0 \cdot 2^3 + 0 \cdot 2^2 + 0 \cdot 2^1 + 1 \cdot 2^0$   
 $128 + 64 + 32 + 0 + 0 + 0 + 0 + 1$   
 $= \boxed{225_{10}}$

8.  $11_2 = 1 \cdot 2^1 + 1 \cdot 2^0$   
 $2 + 1$   
 $= \boxed{3_{10}}$