

$$\begin{array}{lcl}
 5. & 177_{10} & \left. \begin{array}{l} 177/2 = 88 \text{ R1} \\ 88/2 = 44 \text{ R0} \\ 44/2 = 22 \text{ R0} \\ 22/2 = 11 \text{ R0} \\ 11/2 = 5 \text{ R1} \\ 5/2 = 2 \text{ R1} \\ 2/2 = 1 \text{ R0} \\ 1/2 = 0 \text{ R1} \end{array} \right\} = \boxed{10110001_2}
 \end{array}$$

$$\begin{array}{lcl}
 6. & 245_{10} & \left. \begin{array}{l} 245/2 = 122 \text{ R1} \\ 122/2 = 61 \text{ R0} \\ 61/2 = 30 \text{ R1} \\ 30/2 = 15 \text{ R0} \\ 15/2 = 7 \text{ R1} \\ 7/2 = 3 \text{ R1} \\ 3/2 = 1 \text{ R1} \\ 1/2 = 0 \text{ R1} \end{array} \right\} = \boxed{11110101_2}
 \end{array}$$

Convert the following binary numbers to decimal

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

$$\begin{aligned}
 8. \quad 11_2 &= 1 \cdot 2^1 + 1 \cdot 2^0 \\
 &= 2 + 1 \\
 &= \boxed{3_{10}}
 \end{aligned}$$