**Notations**

\[ 010111001010_{12} = 5CA_{16} \]
\[ 10110001011010_{12} = 2C5A_{16} \]
\[ 1101111010111111_{2} = DEAF_{16} \]
\[ 1101111010_{2} = 3BA_{16} \]
\[ 1110110100001_{2} = 3B41_{16} \]
\[ AC9_{16} = 10101001001_{2} = 5311_{8} \]
\[ FAD_{16} = 1111101011011110_{2} = 175336_{8} \]
\[ 1ED5_{16} = 17325_{8} \]
\[ 1752_{8} = 11110101010_{2} = 3EA_{16} \]
\[ 1132_{8} = 25A_{16} \]
\[ 10111.11_{2} = 27.6_{8} \]
\[ 10110101_{2} = 1 + 4 + 16 + 32 + 128 = 181_{10} \]
\[ 10101010_{2} = 2 + 8 + 32 + 128 = 170_{10} \]
\[ 110.01_{2} = .125 + .25 + 2 + 4 = 6.375_{10} \]
\[ 11001.101_{2} = 16 + 8 + 1 + .5 + .125 = 25.625_{10} \]
\[ 10101.111_{2} = 21.875_{10} \]
\[ 555_{8} = 101101101_{2} = 365_{10} \]
\[ 175_{8} = 125_{10} \]
\[ 5.5_{8} = 5.625_{10} \]
\[ 555_{10} = 512 + 32 + 8 + 2 + 1 = 10001010_{2} \]
\[ 219_{10} = 11011011_{2} \]
\[ 125_{10} = 1111101_{2} \]
\[ 150_{10} = 10010110_{2} \]
\[ 25.625_{10} = 11001.101_{2} \]
\[ 42.375_{10} = 101010.011_{2} \]
\[ 2^{19} = 2^{10} * 2^9 = 512,000_{10} \]
\[ 2^{26} = 2^{10} * 2^{10} * 2^6 = 64,000,000_{10} \]
\[ 2^{38} = 2^8 * 2^{30} = 256 \text{ billion} = 274,877,906,900 \]