$71_8 \rightarrow$ base 10

$71_8 = 57_{10}$

$7 \times 8^1 + 1 \times 8^0 = 56 + 1 = 57$

$71_8 \rightarrow$ base 2

$71_8 = 111001_2$

$7 = 111 \quad 1 = 001$

$71_8 \rightarrow$ base 16

$71_8 = 39_{16}$

$71_8 = 111001_2 \Rightarrow 0011 = 3_{16} \quad 1001 = 9_{16}$

$AB_{16} \rightarrow$ base 10

$AB_{16} = 171_{10}$

$A \times 16^1 + B \times 16^0 = 10 \times 16 + 11 \times 1 = 160 + 11 = 171$

$AB_{16} \rightarrow$ base 2

$AB_{16} = 10101011_2$

$A = 1010 \quad B = 1011$

$AB_{16} \rightarrow$ base 8

$AB_{16} = 253_8$

$AB_{16} = 10101011_2 \Rightarrow 010 = 2 \quad 101 = 5 \quad 011 = 3$

$127_{10} \rightarrow$ base 2

$127_{10} = 1111111_2$

$1 \times 2^6 + 1 \times 2^5 + 1 \times 2^4 + 1 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0$

$64\overline{)127}$ 1, 64, R 63 — $32\overline{)63}$ 1, 32, R 31 — $16\overline{)31}$ 1, 16, R 15 — $8\overline{)15}$ 1, 8, R 7 — $4\overline{)7}$ 1, 4, R 3 — $2\overline{)3}$ 1, 2, R 1

$127_{10} \rightarrow$ base 8

$127_{10} = 177_8$

$1 \times 8^2 + 7 \times 8^1 + 7 \times 8^0$

$64\overline{)127}$ 1, 64, R 63 — $8\overline{)63}$ 7, 56, R 7

$127_{10} \rightarrow$ base 16

$127_{10} = 7F$

$7 \times 16^1 + 15 \times 16^0$

$16\overline{)127}$ 7, 112, R 15

$10101_2 \rightarrow$ base 10

$1 \times 2^4 + 1 \times 2^2 + 1 \times 2^0$

$= 16 + 4 + 1 = 21$

$10101_2 = 21_{10}$

$10101_2 \rightarrow$ base 8

$010 = 2 \quad 101 = 5 \quad \therefore$

$10101_2 = 25_8$

$10101_2 \rightarrow$ base 16

$0001 = 1 \quad 0101 = 5 \quad \therefore$

$10101_2 = 15_{16}$