B.10	B.2	B.8	B.16
127	1111111	177	7F
21	10101	25	15
57	11101	71	39
171	10101011	253	AB

A = 10   B = 11

$127 = 100 + 20 + 7$

$= 1 \times 10^2 + 2 \times 10^1 + 7 \times 10^0$

$\dfrac{63}{2 \sqrt{127}}$ R1

$\begin{array}{r} 63 \\ 2\overline{)127} \end{array}$ R1

1111111
$64\ 32\ 16\ 8\ 4\ 2\ 1 = 127$
$+\ +\ +\ +\ +\ +$

$\begin{array}{r} 31 \\ 2\overline{)63} \end{array}$ R1

$\begin{array}{r} 15 \\ 2\overline{)31} \end{array}$ R1

$\begin{array}{r} 7 \\ 2\overline{)15} \end{array}$ ×1

$\begin{array}{r} 3 \\ 2\overline{)7} \end{array}$ R1

$\begin{array}{r} 1 \\ 2\overline{)3} \end{array}$ ×1

$\begin{array}{r} 0 \\ 2\overline{)1} \end{array}$ ×1

$\begin{array}{r} 0 \\ 2\overline{)0} \end{array}$ R0

$\begin{array}{r} 15 \\ 8\overline{)127} \\ -8\downarrow \\ \hline 47 \\ -40 \\ \hline 7 \end{array}$ R7

$\begin{array}{r} 1 \\ 8\overline{)15} \\ -8 \\ \hline 7 \end{array}$ R7

$\begin{array}{r} 0 \\ 8\overline{)1} \\ -0 \end{array}$ R1

$127_{10} = 177_8$

$\begin{array}{r} 007 \\ 16\overline{)127} \\ -112 \\ \hline 15 \end{array}$ R15

$\begin{array}{r} 0 \\ 16\overline{)15} \end{array}$ R15

$\dfrac{1111111}{7} + \dfrac{1111}{7}\ _z\ _8$

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

$64 + 56 + 7 = 127_{10}$

$\dfrac{1111}{7}\ \dfrac{111}{F}\ _z\ _{16}$

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

$112 + 15 = 127_{10}$

$\begin{array}{r} 7 \\ 16\overline{)127} \\ -112 \\ \hline 15 \end{array}$ R15

$\begin{array}{r} 0 \\ 16\overline{)7} \end{array}$ R7

$21 = 10101$

$$2 \times 8^1 + 5 \times 8^0 = 21_{10}$$

$$\overset{2}{8\overline{)21}}\ R5$$
$$\underline{-16}$$
$$5$$

$$\overset{1}{16\overline{)21}}\ R5$$
$$\underline{-16}$$
$$5$$

$$1 \times 16^1 + 5 \times 16^0 = 21_{10}$$

$$\overset{0}{8\overline{)2}}\ R2$$

$$\overset{0}{16\overline{)1}}\ R1$$

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

$$\overset{28}{2\overline{)57}}\ R1$$
$$\underline{-4\downarrow}$$
$$17$$
$$\underline{-16}$$
$$1$$

$$\overset{0\,1\,1\,1\,0\,0\,1}{32\ 16\ 8\quad 1} = 57$$

$$\overset{3}{16\overline{)57}}\ R9$$
$$\underline{-48}$$
$$9$$

$$3 \times 16^1 + 9 \times 16^0 = 48 + 9 = \boxed{57}$$

$$\overset{14}{2\overline{)28}}\ R0$$

$$\overset{0}{16\overline{)3}}\ R3$$

$$\overset{7}{2\overline{)14}}\ R0$$

$$\frac{1\,0\,1\,0\,1\,0\,1\,1}{2\quad 5\quad 3}$$

$$\overset{3}{2\overline{)7}}\ R1$$

$$\overset{1}{2\overline{)3}}\ R1$$

$$2 \times 8^2 + 5 \times 8^1 + 3 \times 8^0$$
$$128 + 40 + 3 = 171$$

$$\overset{0}{2\overline{)1}}\ R1$$

$$\overset{0}{2\overline{)0}}\ R0$$