Homework

$93_{10} = \underline{5D}_{16} \times \underline{135}_{8} \times \underline{01011101}_{2}$

Base 16

$$\begin{array}{r} 05 \\ 16\overline{)93} \\ -80 \\ \hline 13 \end{array}$$

$5 \times 10^1 + D \times 10^0$

Base 8

$1 \times 8^2 + 3 \times 8^1 + 5 \times 8^0$

$$\begin{array}{r} 93 \\ -64 \\ \hline 29 \end{array} \quad \begin{array}{r} 29 \\ -24 \\ \hline 5 \end{array}$$

Base 2

$$\begin{array}{cc} 5 & D \\ 0101 & 1101_2 \end{array}$$

Check: 1 3 5

$93_{16} = \underline{10010011}_2 \times \underline{223}_8 \times \underline{147}_{10}$

Base 2

913

$1001\,0011_2$

Base 8

$\underline{1}\,\underline{001}\,\underline{0011}_2$

$2\ \ 2\ \ 3_8$

Base 10

$$\begin{array}{r|l} & 9 \\ \hline 16 & 147 \\ & -144 \\ \hline & 3 \end{array}$$

$156_8 = \underline{1010\,1110}_2 \times \underline{208}_{10} \times \underline{AE}_{16}$

Base 2

1 5 . 6
1 0 1 0 1 1 1 0 $_2$

Base 16

$\underline{1010}\ \underline{1110}$
A E

Base 10

$$\begin{array}{r} 13 \\ 16 \overline{)\,208} \\ -192 \\ \hline 16 \end{array}$$

$10101010_2 = \underline{252}_8 \times \underline{156}_{10} \times \underline{AA}_{16}$

Base 8

$\underline{10}\,\underline{10}\,\underline{10}\,\underline{10}$
$2\ 5\ \ 2\ \ 2_8$

Base 16 $\underline{1010}\,\underline{1010}$
$A\ \ A$

Base 10

$$16\overline{)156}\ \ 12$$
$$-144$$
$$12$$