

1.  
 a)  $(472)_8 = (100111010)_2$   
 b)  $(153)_8 = (1101011)_2$   
 c)  $(544)_8 = (101100100)_2$

1	001
2	010
3	011
4	100
5	101
6	110
7	111
OCTAL	BINARY

2.

a)

~~1100~~

$$\begin{array}{r}
 \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{0} \phantom{0} \phantom{1} \phantom{0} \phantom{0} \phantom{1} \\
 \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{0} \phantom{0} \phantom{1} \phantom{0} \phantom{0} \phantom{1} \\
 + \phantom{1} \phantom{1} \phantom{0} \phantom{1} \phantom{0} \phantom{0} \phantom{1} \phantom{0} \phantom{0} \phantom{1} \\
 \hline
 1 \ 1 \ 0 \ 1 \ 0 \ 1 \ 0 \ 0 \ 1 \ 0
 \end{array}$$

b)  $(1101001001)_2 + (1001)_2 = (1101010010)_2$

$$\begin{array}{r}
 \phantom{5} \phantom{4} \phantom{6} \phantom{7} \phantom{2} \phantom{7} \phantom{1} \\
 \phantom{5} \phantom{4} \phantom{6} \phantom{7} \phantom{2} \phantom{7} \phantom{1} \\
 - \phantom{5} \phantom{4} \phantom{6} \phantom{7} \phantom{2} \phantom{7} \phantom{1} \\
 \hline
 5 \ 4 \ 5 \ 2 \ 7 \ 6 \ 0
 \end{array}$$

$(5467271)_8 - (14311)_8 = (5452760)_8$