Assignement AdC Biondo Mattia S5591839

1) Converti in formato decimale il numero

10000000 00000000 00000000 00000000

Per convertire un numero da binario a decimale, devo sommare tra loro tutte le cifre, singolarmente moltiplicate alla base - in questo caso 2 - elevate alla loro posizione relativa.

$1\times2^{31}+0\times2^{30}+0\times2^{29}+0\times2^{28}+0\times2^{27}+0\times2^{26}+0\times2^{25}+0\times2^{24}+0\times2^{23}+$
$+0\times2^{22}+0\times2^{21}+0\times2^{20}+0\times2^{19}+0\times2^{18}+0\times2^{17}+0\times2^{16}+0\times2^{15}+0\times2^{14}+$
$+0\times2^{13}+0\times2^{12}+0\times2^{11}+0\times2^{10}+0\times2^{9}+0\times2^{8}+0\times2^{7}+0\times2^{6}+0\times2^{5}+0\times2^{4}+$
$0\times2^{3}+0\times2^{2}+0\times2^{1}+0\times2^{0}=1\times2^{31}=2^{31}$

2) Converti in ~~BIN~~ decimale il numero

11111111 11111111 11111111 11111111

$1\times2^{31}+1\times2^{30}+1\times2^{29}+1\times2^{28}+1\times2^{27}+1\times2^{26}+1\times2^{25}+1\times2^{24}+1\times2^{23}+1\times2^{22}+$
$+1\times2^{21}+1\times2^{20}+1\times2^{19}+1\times2^{18}+1\times2^{17}+1\times2^{16}+1\times2^{15}+1\times2^{14}+1\times2^{13}+$
$+1\times2^{12}+1\times2^{11}+1\times2^{10}+1\times2^{9}+1\times2^{8}+1\times2^{7}+1\times2^{6}+1\times2^{5}+1\times2^{4}+1\times2^{3}+$
$+1\times2^{2}+1\times2^{1}+1\times2^{0}=$
$=2^{31}+2^{30}+2^{29}+2^{28}+2^{27}+2^{26}+2^{25}+2^{24}+2^{23}+2^{22}+2^{21}+2^{20}+2^{20}+2^{19}+$
$+2^{18}+2^{17}+2^{16}+2^{15}+2^{14}+2^{13}+2^{12}+2^{11}+2^{10}+2^{9}+2^{8}+2^{3}+2^{2}+2^{1}=$
$=2^{32}-2$