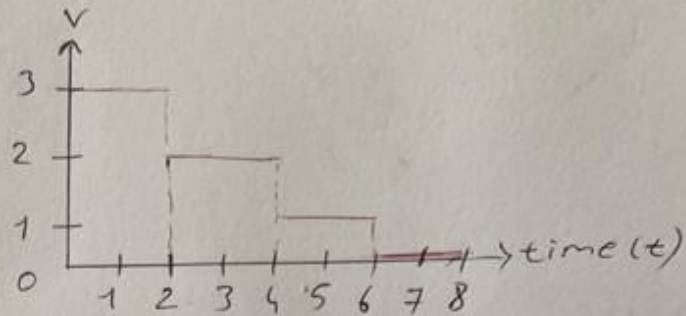


CSE 232 SPRING 2020
HOMEWORK I.

1-) 1111101001010000
3 3 2 2 1 1 0 0



0V \rightarrow 00
1V \rightarrow 01
2V \rightarrow 10
3V \rightarrow 11

2-) 000011 $\rightarrow 2^1 + 2^0 = 3$
1111 $\rightarrow 2^3 + 2^2 + 2^1 + 2^0 = 15$
11110 $\rightarrow 2^4 + 2^3 + 2^2 + 2^1 = 30$
111100 $\rightarrow 2^5 + 2^4 + 2^3 + 2^2 = 60$
0011010 $\rightarrow 2^4 + 2^3 + 2^1 = 26$

3-) 11001101 $\rightarrow 205 \rightarrow C0$
10100101 $\rightarrow 165 \rightarrow A5$
11110001 $\rightarrow 241 \rightarrow F1$
11011011111000 $\rightarrow 7036 \rightarrow 187C$

4-) 10 $\rightarrow (16^1 \cdot 1)(0.16^0) = 16$
4E3 $\rightarrow (3 \cdot 16^0) + (14 \cdot 16^1) + (4 \cdot 16^2) = 1251$
FF0 $\rightarrow (0 \cdot 16^0) + (15 \cdot 16^1) + (15 \cdot 16^2) = 4080$
200 $\rightarrow (0 \cdot 16^0) + (0 \cdot 16^1) + (2 \cdot 16^2) = 512$

5-) LET = 100^L1100 1000^E101 1010^T100 10000^T1
RESET = 1010010 1000^E011 1000^S011 1000^E101 1010^T100
HELLO\$1 = 1001^H000 1000^E101 1001^L100 1001^L100 1001^O111 100^S100
11000⁷1