

Q1

$$AF_{16} = 10 \cdot 16 + 15 = 175_{10}$$

$$2^{n-1} > 175_{10}$$

$$n \geq 9$$

$$2^{n-1} \geq 77_{10}$$

$$n \geq 8$$

n	1	2	3	4	5	6	7	8	9
$2^{n-1}$	0	2	4	8	16	32	64	128	256

$$AF_{16} = 1010 \ 1111_2 = 010101111_{12}$$

9 bit

$$77_{10} = 1001101_2 = 01001101_{12}$$

$$-77_{10} = 10110010_2 + 1 = 10110011_{12}$$

8 bit

$$= 110110011_{12}$$

9 bit

77	2	1	↑
38	2	0	
19	2	1	
9	2	1	
4	2	0	
2	2	0	
1	2	1	
0			

$$\begin{array}{r} 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \\ 0 \ 10 \ 10 \ 1111 \ + \\ 1 \ 10 \ 110011 \ = \\ \hline 001100010 \end{array}$$

RIPORTO SI

OVERFLOW NO

$$\begin{array}{r} / * \ 0 \ 10 \ 10 \ 1111 \ + \\ 0 \ 01 \ 001100 \ = \\ \hline 0 \ 11 \ 111011 \end{array}$$

RIPORTO NO

OVERFLOW NO

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