WIDIYARTI ENDANG SAPUTRI
L200150117
HOMEWORK 2
ORGANISASI DAN ARSITEKTUR KOMPUTER

Lakukan operasi perkalian secara biner (4 bit) antara

a. -12 x 10 = 0100 x 1010

A	Q_0	Q_1	M	Count
0000	0100	0	1010	4
0000	0010	0	1010	4
0000	0001	0	1010	3

A = A + (-M) = 0000 + (-1010)
= 0000 + 0110 = 0110

0110	0001	0	1010	3
0011	0000	1	1010	2

A = A + M = 0011 +1010 = 1101

1101	0000	1	1010	2
1110	1000	0	1010	1
1111	0100	0	1010	1
1111	1010	0	1010	1
1111	**1101**	0	1010	0

Hasil = 1111 1101

b. 12 x -10 = 1100 x 0110

A	Q_0	Q_1	M	Count
0000	1100	0	0110	4
0000	0110	0	0110	4
0000	0011	0	0110	3

A = A + (-M) = 0000 + (-0110)
= 0000 + 1010 = 1010

1010	0011	0	0110	3
1101	0001	1	0110	2
1110	1000	1	0110	1

A = A + M = 1110 + 0110 = *1*0100

0100	1000	1	0110	1
0010	**0100**	0	0110	0

Hasil = 0010 0100

c. -12 x -10 = 0100 x 0110

A	Q_0	Q_1	M	Count
0000	0100	0	0110	4
0000	0010	0	0110	4
0000	0001	0	0110	3

A = A + (-M) = 0000 + (-0110)
= 0000 + 1010 = 1010

1010	0001	0	0110	3
1101	0000	1	0110	2

A = A + M = 1101 + 0110 = *1*0011

0011	0000	1	0110	2
0001	1000	0	0110	1
0000	1100	0	0110	1
0000	0110	0	0110	1
0000	**0011**	0	0110	0

Hasil = 0000 0011