Đinh Đức Tài - 23122013

HTMT

Date.

AI23@HCMUS Key point

8 bits A = 0110 1100 B = 0011 1010

(-B) = bù 2 của B = 1100 0110

A - B

A - B = A + (-B) => A - B = 0011 0010

$$\begin{array}{r} 0110\ 1100 \\ +\ 1100\ 0110 \\ \hline 1\ 0011\ 0010 \end{array}$$

A x B

A = 0001 0110 (22) B = 0000 0101 (5)

A	Q	Q_{-1}	M	
0000 0000	0000 0101	0	0001 0110	0
1110 1010	0000 0101	0		
1111 0101	0000 0010	1		1
0000 1011	0000 0010	1		
0000 0101	1000 0001	0		2
1110 1111	1000 0001	0		
1111 0111	1100 0000	1		3
0000 1101	1100 0000	1		
0000 0110	1110 0000	0		4
0000 0110	1110 0000	0		
0000 0011	0111 0000	0		5
0000 0011	0111 0000	0		
0000 0001	1011 1000	0		6
0000 0001	1011 1000	0		
0000 0000	1101 1100	0		7
0000 0000	1101 1100	0		
0000 0000	0110 1110	0		8

=> A x B = 0000 0000 0110 1110

morning glory

Key point

Date.

① $a = b + c - (d + A[i])$

a → X0, b → X1, c → X2, d → X3, A → X4, i → X5

```
MUL X6, X5, #8      // gán X6 ← offset i
LDR X7, [X4, X6]    // gán X7 ← A[i]
ADD X6, X3, X7      // gán X6 ← d + A[i]
ADD X0, X1, X2      // X0 ← b + c
SUB X0, X0, X6      // X0 = (b+c) - (d+A[i])
```

② A → X_5, res → X_1

```
LDUR X1, [X5, #0]   // X1 ← A[0]
LDUR X2, [X5, #8]   // X2 ← A[1]
ADD  X1, X1, X2     // X1 = A[0] + A[1]
LDUR X2, [X5, #16]  // X2 ← A[2]
ADD  X1, X1, X2     // X1 = Σ A[i], i = 0,2
LDUR X2, [X5, #24]  // X2 ← A[3]
ADD  X1, X1, X2     // X1 = Σ A[i], i = 0,3
LDUR X2, [X5, #32]  // X2 ← A[4]
ADD  X1, X1, X2     // X1 = Σ A[i], i = 0,4
```

③ x → X_1, y → X_2

$X0 \leftarrow \max(x, y)$

```
CMP X1, X2          // So sánh X1, X2
B.GE MaxX1          // Nếu x ≥ y, nhảy → MaxX1
MOV X0 X2
MaxX1: MOV X0 X1
```