LATSOL REPRESENTASI BILANGAN

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①
```
int result = 0;
result = x * M + Y/N;
return result;

int optarith (int x, int Y)
{
    int t = x;
    x = x << 4;
    x = x - t;
    Y = Y >>2;
    return x+Y;
}
```

$x << 4 \rightarrow x * 2^4 = 16x$

$x - t \rightarrow 16x - x = 15x$

↳ M = 15

$Y >> 2 \rightarrow Y / 2^2 = \frac{Y}{4} \rightarrow N = 4$

②

x	Y	op	biner	unsigned	Two's comp
1010	0101	x+Y	1111	15	-1
1111	0100	(Y&x) + ~x	Y&x = 0100 -x = 0000 + 0100	4	4
1001	1000	(x^x)|y	x^x = 0000 |y = 1000	8	-8
0110	1001	x && !y	!y = 0000 x = 0110 & 0000	0	0
0110	0011	x && ~y	~y = 1100 x : true true && true = true 0001	1 (true)	1

③ a) int x = -31/8

x = -3,875 → kan int biasa, dibulatin ke atas

∴ = -3

int y = -31 >> 3

$y = -31/_2 3$

$= -31/8$

= -3,... → dibulatkan ke bawah
kan shift right

∴ = -4

b) int main() {
int x=0;
printf("... ");
scanf("%d", &x);
printf("%d", (!!x)<<31);
}

x = 0 → 0

x = 15 → !! x = 1

1<<31 → 2^{31} (1000...)

x = 20 → !! x = 1

1<<31 → 2^{31} (1000....)