

# Побитови операции

# Аритметични и логически операции

+	0	1
0	0	1
1	1	10

*	0	1
0	0	0
1	0	1

&	0	1
0	0	0
1	0	1

	0	1
0	0	1
1	1	1

^	0	1
0	0	1
1	1	0

~	
0	1
1	0

# Побитови операции

&	0	0	1	0	1	0	1	0
	1	0	1	0	0	0	1	1
=	0	0	1	0	0	0	1	0

^	0	0	1	0	1	0	1	0
	1	0	1	0	0	0	1	1
=	1	0	0	0	1	0	0	1

	0	0	1	0	1	0	1	0
	1	0	1	0	0	0	1	1
=	1	0	1	0	1	0	1	1

~	0	0	1	0	1	0	1	0
	1	1	0	1	0	1	0	1

# Побитово изместване

<<2	1	0	1	0	1	1	0	1
	1	0	1	1	0	1	0	0

$$a \ll x \leftrightarrow a * 2^x$$

>>2	1	0	1	0	1	1	0	1
	0	0	1	0	1	0	1	1

$$a \gg x \leftrightarrow a / 2^x$$

# Маски

## Записване на битове

&	0	0	1	0	1	1	1	0
	1	1	1	1	1	0	1	1
=	0	0	1	0	1	0	1	0

	0	0	1	0	1	1	1	0
	0	0	0	1	0	0	0	0
=	0	0	1	1	1	1	1	0

## Прочитане на битове

&	0	0	1	0	1	1	1	0
	0	0	0	0	0	1	0	0
=	0	0	0	0	0	1	0	0

&	0	0	1	0	1	1	1	0
	0	0	0	1	0	0	0	0
=	0	0	0	0	0	0	0	0

# Операции с маски

## Конструирани

$\ll 3$	0	0	0	0	0	0	0	1
$\sim$	0	0	0	0	1	0	0	0
	1	1	1	1	0	1	1	1

$\ll 3$	0	0	0	0	0	0	0	1
$-1$	0	0	0	0	1	0	0	0
$\sim$	0	0	0	0	0	1	1	1
	1	1	1	1	1	0	0	0

## Комбиниране

	0	0	0	0	1	0	0	0
	0	0	1	0	0	0	0	0
	0	0	1	0	1	0	0	0

&	1	1	1	1	1	0	1	1
	1	1	1	0	1	1	1	1
	1	1	1	0	1	0	1	1