

```
bvec<N> a    = Input<N>("a");  
bvec<N> b    = Input<N>("b");  
bvec<ops> op = Input<ops>("op");
```

```
bvec<N> out;  
vec<64, bvec<N>> mux_in;
```

```
mux_in[0x05] = -a;  
mux_in[0x06] = ~a;  
mux_in[0x07] = a & b;  
mux_in[0x08] = a | b;  
mux_in[0x09] = a ^ b;  
mux_in[0x0a] = a + b;  
mux_in[0x0c] = a * b;  
mux_in[0x19] = mux_in[0x0f];  
mux_in[0x1a] = mux_in[0x10];  
mux_in[0x1b] = a;  
mux_in[0x25] = b;
```

```
out = Wreg(enable, Mux(op, mux_in));  
OUTPUT(out);
```

