

```
//status: COMPLETE
```

```
module Selector(
```

```
    input [3:0] sel,
```

```
    input [15:0] N,
```

```
    output [3:0] H
```

```
);
```

```
    assign H = ( sel[3] & !sel[2] &  
!sel[1] & !sel[0]) ? N[15:12]:
```

```
//3
```

```
                (!sel[3] & sel[2] &  
!sel[1] & !sel[0]) ? N[11:8] :
```

```
//2
```

```
                (!sel[3] & !sel[2] &  
sel[1] & !sel[0]) ? N[7:4]  :
```

```
//1
```

```
                (!sel[3] & !sel[2] &  
!sel[1] & sel[0])  ? N[3:0]   : 0;
```

```
//0
```

```
    assign NegDisp = (!sel[3] & sel[2]  
& !sel[1] & !sel[0]);
```

```
endmodule
```