The Virtual Learning Environment for Computer Programming

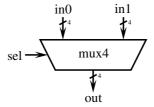
2-input multiplexer with 4-bit signals

X82780_en

Design a 2-input multiplexer in which the inputs are 4-bit wide. The selection signal is called sel, whereas the two inputs are called in0 and in1. The output will be in0 when sel =0 and in1 when sel =1.

Specification

```
module mux4(in0, in1, sel, out);
input [3:0] in0, in1;
input sel;
output [3:0] out;
```



Input

- *in0* and *in1* are the two 4-bit inputs.
- *sel* is the selector.

Output

• *out* is the 4-bit output.

Problem information

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