Gates4

← vectorgates (/wiki/vectorgates)

vector3 (/wiki/vector3) →

Build a combinational circuit with four inputs, `in[3:0]`.

There are 3 outputs:

- out_and: output of a 4-input AND gate.
- out_or: output of a 4-input OR gate.
- out_xor: output of a 4-input XOR gate.

To review the AND, OR, and XOR operators, see andgate (/wiki/andgate), norgate (/wiki/norgate), and xnorgate (/wiki/xnorgate).

See also: Even wider gates (/wiki/gates100).

Module Declaration

```
module top_module(
    input [3:0] in,
    output out_and,
    output out_or,
    output out_xor
);
```

Write your solution here

```
1  module top_module(
2      input [3:0] in,
3      output out_and,
4      output out_or,
5      output out_xor
6  );
7
8  endmodule
9
```

Submit | Submit (new window)

Upload a source file...

← vectorgates (/wiki/vectorgates)

Problem Set Contents