

Gates4 ○

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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 ✓ \(/wiki/andgate\)](/wiki/andgate), [norgate ✓ \(/wiki/norgate\)](/wiki/norgate), and [xnorgate ✓ \(/wiki/xnorgate\)](/wiki/xnorgate).

See also: [Even wider gates ○ \(/wiki/gates100\)](/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
```

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