
1-bit comparator

X44594_en

Design a circuit that compares two bits and indicates whether the first is greater than, equal to or smaller than the second.

Specification

```
module cmp(a, b, eq, gt, lt );  
    input a, b;  
    output eq, gt, lt ;
```

Input

- a and b are the input bits

Output

- eq indicates that $a=b$.
- gt indicates that $a>b$.
- lt indicates that $a<b$.

Problem information

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