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## 1-bit comparator

X60848\_en

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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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