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NOR GATE -

- * The NOR crate is also a univeral gate. So we can also from all the basic gates using the NOR gate. The HOR gate is the combination of the NOT-OR gate.
- * The output sate of the NOR gate will be with only when all the inputs are low
- The logical or Boolean expression gor the
 NOR gate is the NOR gate is the
 complement of logical multiplication of inputs
 denoted by the plus sign as (A + 13)' = Y

The value of Y will be true when all of its inputs are set to 0.

Truth Table

| | Input | | | | | outsut | |
|---|------------------|---|---|---|-------------------|--------|---|
| A | B | C | D | E | F | Y | , |
| O | 0 | 0 | 0 | 0 | 0 | 1 | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| 0 | 0 | 0 | O | | 0 | U | |
| D | 0 | 0 | 0 | 1 | 1 | 0 | |
| | | | | | | | |
| , | | | | | | | |
| | | | | 0 | 0 | 0 | |
| 1 | 1 | 1 | 1 | | | | |
| 1 | 1 | 1 | 1 | 0 | 1 | D | |
| 1 | 1 | 1 | 1 | (| 0 | 0 | |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| | | | | | | | |
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Circuit Diagram

$$\frac{A}{B} = \frac{A}{A+B} = \frac{A}{B} = \frac{A}{B}$$