Logical operators. How to use them in expressions.

P and Q are expressions (5>7).

Logical expression	**Meaning**	**Description**
P && Q	P and Q	The logical expression evaluates to true **only** if P **and** Q are both true, otherwise it is false.
P || Q	P or Q	Either P or Q (or both) must be true and the logical expression will evaluate to true. If both are false, then the expression evaluates to false.

A truth table:

P and Q are expressions. Their values are represented by the two left columns. The values of the logical expressions (&&, ||) are represented by the two right columns.

P	**Q**	**P && Q**	**P || Q**
TRUE	TRUE	TRUE	TRUE
TRUE	FALSE	FALSE	TRUE
FALSE	TRUE	FALSE	TRUE
FALSE	FALSE	FALSE	FALSE

Examples for the above truth table:
NOTE the expressions for P and Q are only examples. We could use many other relational operators.

P	**Q**	**P && Q**	**P || Q**
5>4 (true)	8>7 (true)	5>7 and 8>7 is true	5>4 or 8>7 is true
5>4 (true)	7>8 (false)	5>4 and 7>8 is false	5>7 or 7>8 is true
4>5 (false)	8>7 (true)	4>5 and 8>7 is false	4>5 or 8>7 is true
4>5 (false)	7>8 (false)	4>5 and 7>8 is false	4>5 or 7>8 is false