**TRUTH TABLE**

**Conjunction, Disjunction**

|  |  |  |  |
| --- | --- | --- | --- |
| **P** | **Q** | **P ^ Q** | **P v Q** |
| **V** | **V** | **V** | **V** |
| **V** | **F** | **F** | **V** |
| **F** | **V** | **F** | **V** |
| **F** | **F** | **F** | **F** |
|  |  | **Negation** |  |
| **P** | **Q** | **~P** | **~Q** |
| **V** | **V** | **F** | **F** |
| **V** | **F** | **F** | **V** |
| **F** | **V** | **V** | **F** |
| **F** | **F** | **V** | **V** |
|  |  | **Exercise** |  |
| **P** | **Q** | **~P ^ Q** | **P ^ ~Q** |
| **V** | **V** |  |  |
| **V** | **F** |  |  |
| **F** | **V** |  |  |
| **F** | **F** |  |  |
|  |  |  |  |
| **P** | **Q** | **~P v Q** | **~(P v ~Q)** |
| **V** | **V** |  |  |
| **V** | **F** |  |  |
| **F** | **V** |  |  |
| **F** | **F** |  |  |
|  |  |  |  |
| **P** | **Q** | **P v (Q ^ P)** | **(P ^ Q) v ~Q** |
| **V** | **V** |  |  |
| **V** | **F** |  |  |
| **F** | **V** |  |  |
| **F** | **F** |  |  |