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BSCS – 3

True or False

1. True

2. True

3. False

4. False

Table

1. p^q

|  |  |  |
| --- | --- | --- |
| **p** | **q** | **p^q** |
| T | T | T |
| T | F | F |
| F | T | F |
| F | F | F |

2. **¬ (pVq)**

|  |  |  |
| --- | --- | --- |
| **p** | **q** | **¬ (pVq)** |
| T | T | F |
| T | F | F |
| F | T | F |
| F | F | T |

3. (p->q) ^ (**¬q)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **p** | **q** | p->q | ¬q | (p->q) ^ (**¬q)** |
| T | T | T | F | F |
| T | F | F | T | F |
| F | T | T | F | F |
| F | F | T | T | T |

4. (pVq) <-> (**¬pVq)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **p** | **q** | **(pVq)** | **¬ (pVq)** | (pVq) <-> (**¬pVq)** |
| T | T | T | F | F |
| T | F | T | F | F |
| F | T | T | F | F |
| F | F | F | T | F |