CS 261

Assignemnt 3

Baker, Alex

* 1. Proposition, False
  2. Proposition, False
  3. Proposition, True
  4. Proposition, True
  5. Proposition, False
  6. Not a proposition
  7. If you have the flu, then you miss the final exam.
  8. You pass the course if and only if you make it to the final exam.
  9. If you miss the final exam, then you fail the course.
  10. If you have the flu or you miss the final exam, then you fail the course.
  11. If you make it to the final exam, then you don’t have the flu.

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| --- | --- | --- |
| p | ¬p | p∧¬p |
| T | F | F |
| F | T | F |

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| P | ¬p | p∨¬p |
| T | F | T |
| F | T | T |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | q | ¬q | p∨¬q | (p∨¬q)→q |
| T | T | F | T | T |
| T | F | T | T | F |
| F | T | F | F | T |
| F | F | T | T | F |

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| --- | --- | --- | --- | --- | --- | --- |
| P | q | ¬p | ¬q | p→q | ¬q→¬p | (p→q)↔(¬q→¬p) |
| T | T | F | F | T | T | T |
| T | F | F | T | F | F | T |
| F | T | T | F | T | T | T |
| F | F | T | T | T | T | T |

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| --- | --- | --- | --- | --- |
| P | q | p→q | q→p | (p→q)→(q→p) |
| T | T | T | T | T |
| T | F | F | T | T |
| F | T | T | F | F |
| F | F | T | T | T |

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| --- | --- | --- | --- | --- |
| P | q | p∨q | p⊕q | (p∨q)→(p⊕q) |
| T | T | T | F | F |
| T | F | T | T | T |
| F | T | T | T | T |
| F | F | F | F | T |

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| --- | --- | --- | --- | --- |
| P | q | p∧q | p⊕q | (p⊕q)→(p∧q) |
| T | T | T | F | T |
| T | F | F | T | F |
| F | T | F | T | F |
| F | F | F | F | T |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | q | p∧q | p∨q | (p∨q)⊕(p∧q) |
| T | T | T | T | F |
| T | F | F | T | T |
| F | T | F | T | T |
| F | F | F | F | F |