**Truth Tables and Validity (Key)**

Determine if the arguments represented by the following truth tables are valid or invalid. If an argument is invalid, circle the row(s) on the truth table that demonstrate the invalidity.

1. Valid

|  |  |  |
| --- | --- | --- |
| **P1** | **P2** | **Conclusion** |
| T | T | T |
| T | F | T |
| T | T | T |
| F | F | F |

2. Invalid

|  |  |  |
| --- | --- | --- |
| **P1** | **P2** | **Conclusion** |
| T | T | T |
| T | T | F |
| F | T | T |
| F | F | T |

3. Invalid

|  |  |  |  |
| --- | --- | --- | --- |
| **P1** | **P2** | **P3** | **Conclusion** |
| T | T | T | T |
| F | T | T | T |
| T | T | T | F |
| F | T | F | F |
| T | T | T | T |
| F | T | T | T |
| T | F | T | F |
| F | F | F | F |

4. Invalid

|  |  |  |  |
| --- | --- | --- | --- |
| **P1** | **P2** | **P3** | **Conclusion** |
| T | T | F | T |
| T | T | F | T |
| T | T | T | F |
| T | T | F | F |
| T | T | T | T |
| F | T | F | T |
| T | T | T | F |
| F | F | F | F |

5. Invalid

|  |  |  |  |
| --- | --- | --- | --- |
| **P1** | **P2** | **P3** | **Conclusion** |
| T | F | F | F |
| T | F | T | T |
| T | T | F | F |
| T | T | T | T |
| T | T | F | F |
| T | T | T | F |
| F | F | F | F |
| F | F | T | F |

6. Valid

|  |  |  |  |
| --- | --- | --- | --- |
| **P1** | **P2** | **P3** | **Conclusion** |
| T | T | F | F |
| T | T | F | F |
| T | F | T | F |
| T | T | F | F |
| F | T | T | F |
| F | T | F | F |
| T | F | T | F |
| F | T | F | F |