## Complete Truth-table Exercise

Construct truth-tables for the following wffs. This is not an online exercise, but one that you should do with good-old-fashioned paper and pencil. Answers are provided to some via a link. When you've covered the material on logical status, go back and determine the logical status of these wffs from the truth-tables.

1. $(\mathrm{A} \supset \sim \mathrm{B}) \vee(\sim \mathrm{B} \& \mathrm{~A})$
2. $(\mathrm{A} \supset \mathrm{B}) \supset(\mathrm{B} \supset \mathrm{A})$
3. $(\mathrm{C} \& \sim \mathrm{D}) \equiv \sim(\sim \mathrm{C} \vee \mathrm{D})$
4. $\sim \sim(\mathrm{A} \supset \sim \mathrm{B}) \vee(\sim \mathrm{C} \& \sim \mathrm{~A})$
5. $(\mathrm{A} v \sim \mathrm{~A}) \vee(\mathrm{A} \supset \mathrm{B})$
6. $(\sim \mathrm{A} \supset \sim \mathrm{B}) \equiv(\sim \mathrm{B} \supset \sim \mathrm{A})$
7. $(\mathrm{A} \supset \sim \mathrm{B}) \equiv(\sim \mathrm{B} \vee \sim \mathrm{A})$
8. $(\mathrm{C} v(\mathrm{D} \& \mathrm{E})) \supset((\mathrm{C} \vee \mathrm{D}) \&(\mathrm{C} v \mathrm{E}))$
9. $\sim(\mathrm{A} \supset(\mathrm{B} \supset \mathrm{A}))$
10. $\mathrm{A} \&(\mathrm{~B} \vee \sim(\mathrm{C} \equiv \sim \mathrm{A}))$
