Practice 3.2–3.3 Name_____

Construct a truth table for the statement.

1) $p \rightarrow \sim q$

2) $\sim[p \leftrightarrow (\sim q)]$

3) $\sim q \rightarrow (\sim q \wedge p)$

4) $(p \rightarrow \sim q) \rightarrow (p \wedge \sim q)$

5) $\sim(p \wedge q) \rightarrow (p \rightarrow (\sim r \wedge q))$

6) $(p \rightarrow q) \rightarrow (\sim p \vee q)$

7) $(\sim p \rightarrow q) \leftrightarrow (q \rightarrow \sim r)$

Write the compound statement in symbols. Then construct a truth table for the symbolic statement.
Let r = "The food is good," p = "I eat too much," q = "I'll exercise."

8) If the food is good, then I eat too much.

9) If the food is good or if I eat too much, I'll exercise.

10) I'll exercise if I don't eat too much.