

## Construct Truth Tables

Copy and complete each truth table.

1.

| $p$ | $q$ | $\sim p$ | $\sim p \wedge q$ |
|-----|-----|----------|-------------------|
| T   | T   |          |                   |
| T   | F   |          |                   |
| F   | T   |          |                   |
| F   | F   |          |                   |

2.

| $p$ | $q$ | $\sim p$ | $\sim q$ | $\sim p \vee q$ |
|-----|-----|----------|----------|-----------------|
| T   |     |          |          |                 |
| T   |     |          |          |                 |
| F   |     |          |          |                 |
| F   |     |          |          |                 |

Construct a truth table for each compound statement.

3.  $\sim p \vee \sim q$

| $p$ | $q$ | $\sim p$ | $\sim q$ | $\sim p \vee \sim q$ |
|-----|-----|----------|----------|----------------------|
|     |     |          |          |                      |
|     |     |          |          |                      |
|     |     |          |          |                      |
|     |     |          |          |                      |

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

| $p$ | $q$ | $\sim q$ | $(p \wedge \sim q)$ | $\sim(p \wedge \sim q)$ |
|-----|-----|----------|---------------------|-------------------------|
|     |     |          |                     |                         |
|     |     |          |                     |                         |
|     |     |          |                     |                         |
|     |     |          |                     |                         |