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# CHAPTER 40B — Truth Tables and De Morgan's Rules

## Chapter Topics:

- Truth Tables
- De Morgan's Rules

Boolean expressions are used to control branches and loops in computer programs. Of course, branches and loops are fundamental to programming. This chapter shows some methods for working with boolean expressions.

**Truth tables** are used to analyze boolean expressions. **De Morgan's rules** can transform confusing boolean expressions into easier ones. Both of these techniques are used in programming and in computer hardware design (and in other areas). Questions about boolean expressions and De Morgan's Rules are prominent on the AP Computer Science Test.

## QUESTION 1:

(Review :) What is the value of: `x < 12 && y > 10`

Assume that `x` contains 9 and `y` contains 7.

