

# Logic, Selection, and Repetition

- Logic and selection material is in Chapter 7 of “The Object of Java” by D. Riley
- Repetition material is in Chapter 10
- Recommend reading section 7.9 on “Software Testing”
- Recommend reading section 10.9 on “Testing and Loops”
- In general, we will not always have time to cover software engineering tips. At the least, skim the appropriate chapters for the “Software Engineering Tips” boxes.

# Simple Boolean Expressions

- There are only two possible values for a boolean expression:
  - true      false
- A simple boolean expression (not all of them) can have the following form:
  - *expression1 relational-operator expression2*
- Relational Operators:
  - < less than
  - <= less than or equal to
  - > greater than
  - >= greater than or equal to
  - == equal to (do not confuse with =)
  - != not equal to

# Simple Boolean Expressions -- Example

- If  $x$  is 10 and  $y$  is 5 (int  $x = 10$ ,  $y=5$ )

<u>Boolean Expressions</u>		<u>Results</u>
$x > 1$	→	true
$x < 5$	→	false
$x \geq 10$	→	true
$y < x$	→	true
$y \neq 5$	→	false
$x == y$	→	false
$y \leq x$	→	true