

# Conditional Operator

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# Objectives

- To write expressions using the conditional operator (§3.14)

# Outline

- Discussed
  - Boolean data type and Boolean expressions
  - If-statements (one-way, two-way, multi-way, and nested if-statements) and their flow charts
  - Common errors and pitfalls
  - 3 (“big”) programming problems (subtraction quiz, compute BMI, compute taxes)
  - Logical operators and two more (“big”) programming problems (LeapYear, Lottery)
  - Switch statement
- Conditional operator

# Conditional Operator

**boolean-expression ? exp1 : exp2**

# Conditional Operators

if ( $x > 0$ )

$y = 1$

is equivalent to

$y = (x > 0) ? 1 : -1;$

else

$y = -1;$

# More Examples

```
if (num % 2 == 0)
    System.out.println(num + "is even");
else
    System.out.println(num + "is odd");
```

```
System.out.println(
    (num % 2 == 0)? num + "is even" :
    num + "is odd");
```

# Categorizing Operators

- The number of operands
  - Ternary operator
    - (boolean-expression) ? expression1 : expression2
  - Binary operator
    - Examples?
  - Unary operator
    - Examples?

# Questions?