Key point: *An assignment statement designates a value for a variable. An assignment statement can be used as an expression in Java.*

2.6 Assignment Statements and Assignment Expressions

- In Java the equal sign (=) is the assignment operator.

  variable = expression;

- An *expression* represents a computation involving values, variables, and operators that taking them together, evaluates to a value.
- Examples:

  ```
  int y = 1;                    //Assign 1 to the variable y
  double radius = 1.0;          //Assign 1.0 to the variable radius
  int x = 5 * (3 / 2);          //Assign the value of the expression to x
  x = y + 1;                    //Assign the addition of y and 1 to  x
  double area = radius * radius * 3.14159;//Compute area
  ```

- A variable can appear on both sides of the assignment operator.

  ```
  x = x + 1;
  ```

- Wrong.

  ```
  1 = x;                        //Wrong
  ```

- When an assignment is used as an expression, the value assigned is the value of the expression.

  ```
  System.out.println(x = 1);
  ```

  is equivalent to

  ```
  x = 1;
  System.out.println(x);
  ```

- When an expression or value is assigned to multiple variables, the statement is evaluated from right to left.

  ```
  i = j = k = 1;
  ```

  is equivalent to

  ```
  k = 1;
  j = k;
  i = j;
  ```