Chapter 2 Worksheet

1. What is a variable?
2. Why use a variable?
3. Can a variable be reassigned?
4. What is the structure of declaring a variable?
5. What is the structure for assigning a variable?
6. Which data types can hold whole values?
7. Which data types can hold decimal values?
8. Can a double data type hold a whole number?
9. Can an int data type hold a number that has a decimal value?
10. Declare a variable to hold a whole number with the identifier of num.
11. Assign num with the value of 102.
12. Change the value of num to 202.
13. Declare and assign a variable with the identifier decNum with the value of 102.777.
14. What variable is needed to be able to read in values?
15. Does that variable have to be called (have the identifier of) input?
16. What library has be listed to use the Scanner variable?
17. What methods in the Scanner class reads in whole numbers?
18. What methods in the Scanner class reads in decimal numbers?
19. How do the identifiers have to be for constants?
20. What are the two ways of doing naming conventions for identifiers that have more than one word?
21. What kind of data type would be appropriate for the following identifiers:

|  |  |
| --- | --- |
| VALUE\_OF\_DIMES |  |
| howManyDimes |  |
| typesOfBoxes |  |
| TheProgram |  |
| semester |  |
| balance |  |
| color |  |
| pounds |  |

1. If given int x = 2 and int y = 5, what is the output from the following Java statements?

System.out.println(y/x);

double z = x/y;

System.out.println(z);

int q = x/y;

System.out.println(q);

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System.out.println(y/x);

1. Write the Java statement for 28.
2. What is the output of the following Java statements?
   1. System.out.println(5%2);
   2. System.out.println(2%5);
3. What is the output of the following Java statements?
   1. int i = 2; i += 5; System.out.println(i);
   2. int i = 4; i -= 2; System.out.println(i);
   3. int i = 4; i \*= 2; System.out.println(i);
   4. int i = 10; i /= 2; System.out.println(i);
   5. int i = 16; i %= 2; System.out.println(i);
   6. int i = 2; i -= 2; System.out.println(i);
4. What is the output of the following Java statements?
   1. int i = 102; System.out.println(++i);
   2. int i = 102; System.out.println(--i);
   3. int i = 102; System.out.println(i++);
   4. int i = 102; System.out.println(i--);
   5. int i = 102; int num = 10 \* i++;

System.out.println(“i is ” + i + “ and num is ” + num);

* 1. int i = 102; int num = 10 \* ++i;

System.out.println(“i is ” + i + “ and num is ” + num);

1. What is the output of the following Java statements?
   1. System.out.println((int) 3.6);
   2. System.out.println((double) 6/3);
   3. System.out.println(7/2.0);
   4. int num = 0; num += 4.5; System.out.println(num);
   5. double num1 = 8.2; int num2 = num1;

System.out.println(“num1 is ” + num1 + “ and num2 is ” + num2);

1. Write the Java statement that will display the variable course, which holds the value of 102.654, as 102 – without changing the value of, declaring a new variable, or just printing the value of 102.
2. Giving the int variable upper, and the int variable lower, write the Java statement that will display upper / lower with the whole, correct value.