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Fundamentals of Programming 1

Lab 2

1) In Java a variable is a way to store information for the user to program without having to constantly writing the same statement over and over. Basically, it is an identifier that refers to a memory location used to hold data values that can change as the program executes. However, a constant, is a different type of identifier, it stores a data value that cannot change.

2)

a) Declares a variable named x that will hold an integer value (type int). Memory is allocated for the variable but the value is undefined.

b) Declares a variable named x that will hold a value of type int and stores the initial value of 3 in the variable.

c) Stores the value of 3 in the variable x.

3) val1 = scan.nextInt();

val2 = scan.nextInt();

val3 = scan.nextInt();

average = (double)(val1 + val2 + val3)/3;

System.out.println ("The average is " + average);

4) a) a + b \* c = 73

b) a-b-c=-14

c) a/b = 0

d) b/a=3

e) a-b/c=2

f) w / y = 4.03125

g) y / w = 0.248062

h) a + w / b = 4.29

i) a % b / y = 3 / 3.2 = 0.9375

j) b % a=1

k) w % y=0.1

5) // File:     Errors.java

// Purpose:  A program with lots of syntax errors

// Correct all of the errors (STUDY the program carefully!!)

import java.util.Scanner; \*No # symbol in an import statement

public class Errors \*The class name should be Errors not errors.

{

public static void main (String[] args)

{

String Name; // Name of the user \*Two Slashes for a comment

int number;

int numSq;

Scanner scan = new Scanner(System.in);

System.out.print ("Enter your name, please: "); \*Missing Semicolon

Name = scan.next (); \*Name is a String not a int

System.out.print ("What is your favorite number?”); \*Missing end quote “

number = scan.nextInt();

numSq = number \* number;

System.out.println (Name +  ", the square of your number is " +

numSq); \*Missing concatenation operator +

\*and wrong variable name

} \*Missing closing brace

}