# Chapter 2

**Exercises:**

**1.**

1. F
2. F
3. F
4. T
5. T
6. T
7. T
8. T
9. T
10. F

**2.** a, b, c, d, e, j

**3.** a

**4.** keyword is a reserved word that has a special meaning for the compiler and cannot be used as an identifier but a user-defined identifier is a name that can be defined and used by the user for different types of variables.

**5.** No the**y** are different since java is a case-sensitive language and one of these identifiers starts with capital “F” and the other one starts with small “f”.

**6.**

1. 8
2. 14
3. 4
4. -2
5. 4.5
6. 25.5
7. 15
8. 16.2

**7.**

1. 3
2. 0.5
3. 4.5
4. 38.5
5. 1
6. 2
7. 2
8. 520

**8.**

1. Valid
2. Valid
3. Valid
4. Not valid
5. Valid
6. Not valid
7. Not valid
8. Not valid
9. Valid
10. Valid
11. Valid

* **9.** 7.375
* **10.**
* Line 1. It is not a variable declaration it is a variable initialization.
* Line 2. Declaration is correct but the value for assignment is missing.
* Line3. Correct.
* Line 4. Correct.
* **11.** a, c
* **12.**

1. int x, y;
2. int x = 10;

* char ch = ‘B’;

1. x += 5;
2. double payRate = 12.50;
3. tempNum = firstNum;
4. int x, y, temp;

* temp = x;
* x = y;
* y = temp;

1. System.out.println(“\nx = “ + x + “\ny = “ + y

* + “\nx + 12 / y – 18 = ” + (x + 12 / y - 18));

1. char grade = ‘A’;
2. int x, y, w, z;
3. int x;

* double z;
* x = int (z + 0.5);
* **13.**

1. 32 \* a + b;
2. ‘8’;
3. “Julie Nelson”
4. (b \* b - 4 \* a \* c) / (2 \* a)
5. (a + b) / (c \* (e \* f) – g \* h)
6. (-b + (b \* b – 4 \* a \* c)) / (2 \* a)

* **14.**
* x = 5
* z = 3
* y = 2
* z = 7
* w = 8
* z = 3
* 9
* **15.**
* x = 17
* y = 15
* x = 20
* z = 6
* w = 12.17
* t = 4.5
* **16.**
* **a.** 92
* **b.** 25 35
* **17.**

1. x = 2 y = 5 z = 6
2. x + y = 7
3. Sum of 2 and 6 is 8
4. z / x = 3
5. 2 times 2 = 4

* **18.**

1. 0.5
2. 24.5
3. 37.6
4. 8.3
5. 10
6. 38.75

* **19.**

1. System.out.print(\n);
2. System.out.print(\t);
3. System.out.print(“\””);

* **20.** a and c are correct java statements.
* **21.**

1. firstName
2. discountPrice
3. juiceBottles
4. milesTraveled
5. highestTestScore

* **22.**

1. int num1, num2;
2. System.out.println(“Enter two integer numbers: “);
3. static Scanner console = new Scanner(System.in);

* num1 = console.nextInt();
* num2 = console.nextInt();
* d)System.out.println("num1 = " + num1 + "\nnum2 = " + num2
* + "\n2num1 - num2 = " + (2 \* num1 - num2));
* **23.**
* public class Exercise23
* {
* static final int SECRET\_NUM = 11213;
* static final double PAY\_RATE = 18.35;
* public static void main(String[] args)
* {
* int one, two;
* double first, second;
* one = 18;

two = 11;

  first = 25;

second = first \* two;

second = 2 \* SECRET\_NUM;

SECRET\_NUM = SECRET\_NUM + 3;

System.out.println(first + “ “ + second + “ “ + SECRET\_NUM);

paycheck = hoursWorked \* PAY\_RATE;

System.out.println(“Wages = “ + paycheck);

}

}

* **24.**

import java.util.\*;

public class Exercise24

{

static Scanner console = new Scanner(System.in);

public static void main(String[] args)

{

int temp;

String first, last;

System.out.print(“Enter first name: “);

first = console.next();

System.out.println();

System.out.print(“Enter last name: “);

last = console.next();

System.out.print(“Enter today’s temperature: “);

temp = console.nextInt();

System.out.println();

System.out.println(first + “ “ + last

+ “ today’s temperature is: “;

+ temperature);

}

}

* **25.**
* public class Exercise25
* {
* static final char STAR = ‘\*’;
* static final int PRIME = 71;
* public static void main(String[] args)
* {
* int count, sum
* int newNum;
* double x;
* count = 1;
* sum = count + PRIME;
* x = 25.67;
* newNum = count \* 1 + 2;
* sum += count;
* x = x + sum \* count;
* System.out.println(“ count = “ + count + “ , sum = “
* + sum + “, Prime = “ + PRIME);
* }
* }
* **26.** The variable should be declared and initialized before it can be used.
* **27.** Class string is part of java.lang package and since this package is automatically being imported in to the system, there is no need to explicitly import it.
* **28.**

1. x \*= 2;
2. x += y - 2;
3. sum += num;
4. z \*= x + 2;
5. y /= (x + 5);

* **29.**

1. x = x + 5 - z;
2. y = 2 \* x \* y + 5 \* y - y \* z;
3. w = w + 2 \* z + 4;
4. x = z + y - t - x;
5. sum = sum + num;
6. x = x / (y - 2);

* **30.**
* a = 9 b = 7 c = UND
* a = 9 b = 8 c = 26
* a = 10 b = 44 c = 27
* **31.**
* a = 3 b = 5 c = 14.1 sum = 22
* a = 3 b = 5 c = 4.7 sum = 22
* a = 3 b = 6 c = 4.7 sum = 22
* a = 48 b = 6 c = 4.7 sum = 22
* **32.**
* a = 25
* Enter the first integers: 20 15
* The numbers you entered are 20 and 15
* z = 45.5
* Your grade is A
* The value of a = 65
* **33.**
* Enter your last name: Miller
* Enter a two digit number: 34
* Enter positive integer less than 1000: 340
* Name: Miller
* Id: 3417
* Mystery number: 3689
* **34.**
* import java.util.\*;
* public class Exercise 34
* {
* static Scanner console = new Scanner(System.in);
* static final double X = 13.45;
* static final int Y = 34;
* static final char BLANK = ‘ ‘;
* public static void main(String[] arg)
* {
* String firstName, lastName;
* int num;
* double salary;
* System.out.print(“Enter first name: “);
* firstName = console.next();
* System.out.println();
* System.out.print(“Enter your last name: “);
* lastName = console.next();
* System.out.println();
* System.out.print(“Enter a positive integer less than 70: “);
* num = console.nextInt();
* System.out.println();
* salary = num \* X;
* System.out.println(“Name: “ + firstName + BLANK + lastName);
* System.out.println(“Wages: $” + salary);
* System.out.println(“X = “ + X);
* System.out.println(“X + Y = “ + (X + Y));
* }
* }
* **35.**
* integer name integer