Multiple Choice:

4.1 B

4.2 C

4.3 D

4.4 C b

4.5 E

4.6 D

4.7 C a

4.8 D e

4.9 A

4.10 A b

True False:

4.1 True

4.2 False

4.3 True

4.4 False

4.5 True

4.6 True

4.7 False

4.8 False

4.9 False

4.10 False

Short Answer:

**4.1**

public translate (int x)

{

//body

}

**4.3**

public void printAnswer (double x, double y, double z)

{

//body

}

**4.5**

public int void powersOfTwo ()

{

int y = 2;

for (x = 0; x < 10; x++)

{

System.out.println(y)

y = y \* 2;

}

}

**4.7**

public int sum100 ()

{

int y = 0;

for (x = 1; x <= 100; x++)

{

y += x

}

return y;

}

**4.9**

public int sumRange (int x, int y)

{

int b=0;

if (x > y)

{

System.out.println (“2nd param can not be less than 1st”)

} else {

for (a = x; a <= y; a++)

{

b += a;

}

}

return b;

}

**4.11**

public int countA (string x)

{

int letters=0;

x.toLowerCase()

for(i=0; i<x.length(); i++)

{

if(x.charAt(i) == “a”)

{

letters++;

}

}

}

**4.15**

public float average (int num1, int num2, int num3, int num4)

{

float average;

average = (num1 + num2 + num3 + (float) num4)/4;

return average;

}

**4.17**

public string multiConcat (string phrase)

{

String concat=“”;

for(x=1; x<=2; x++){

concat += phrase;

}

return concat;

}

public string multiConcat (int num, string phrase)

{

String concat=“”;

for(x=1; x<=num; x++) {

concat += phrase;

}

return concat;

}

**4.22**

public boolean isIsosolies(int side1, int side2, int side3)

{

if(side1 == side2 && side1 == side3){

return false;

} else if (side1 == side2 || side1 == side3 || side2 == side3){

return true;

} else {

return false;

}

}

**4.23**

import java.util.Random;

public int randominRange(int num1, int num2)

{

int random;

if(num1 > num2){

return 0;

}

Random range = new Random();

random = range.nextInt(num2) + num1;

return random;

}

**4.25**

public void drawCenteredCircle(string color, int x, int y, int r) {

g.setColor(Color.color);

g.fillOval(x,y,r,r);

}

**4.26**

public void drawCenteredCircle(int x, int y, int r) {

g.setColor(Color.black);

g.fillOval(x,y,r,r);

}

AP Style:

4.1 D

4.2 B

4.3 B

4.4 D