R5.2 s++ will be executed if x>0 once and can be executed again if y>0 as well.

s++ will be executed if x>0 or under the condition of x<=0 and y>0.

R5.3 a) Condition must be enclosed in parens, and there is no then keyword in Java.

b) Missing )

c) not = but ==

d) hasNextInt() method returns true if the next token in this scanner's input can be interpreted as an int value

e) About the last three if statements, they should be else if

R5.4 a) -1

b)1

c)1

d)2

R5.5 **if**(x>0) y=x;

**else y=0;**

R5.6 if(x>0) y=x;

else y=-x;

R5.7 Inevitable lack of precision, with floating-point numbers.

For an integer n equals 10

n == 10

a floating-point number x is approximately equal to 10

Math.abs(x - 10) <= 1E-14

R5.18 **import** java.util.\*;

**public** **class** Prelim3\_3 {

**public** **static** **void** main(String[] args) {

System.***out***.print("Enter a month: ");

Scanner a = **new** Scanner(System.***in***);

String b = a.next();

System.***out***.print("Enter a day: ");

Scanner c = **new** Scanner(System.***in***);

**int** d = c.nextInt();

**if**(b.equals("January") && d == 1) {

System.***out***.print("New Year's Day");

}

**if**(b.equals("July") && d == 4) {

System.***out***.print("Independence Day");

}

**if**(b.equals("November") && d == 11) {

System.***out***.print("Veterans Day");

}

**if**(b.equals("December") && d == 25) {

System.***out***.print("Christmas Day");

}

}

}

R5.27, R5.30, R5.31, R5.32

E5.4 **import** java.util.\*;

**public** **class** Prelim3\_5{

**public** **static** **void** main(String[] args) {

System.***out***.print("Enter three numbers: ");

Scanner a = **new** Scanner(System.***in***);

**int** b = a.nextInt();

**int** c = a.nextInt();

**int** d = a.nextInt();

**if**(b==c&&c==d) System.***out***.println("all the same");

**if**(b!=c&&c!=d) System.***out***.println("all different");

**else** System.***out***.println("neither");

}

}

E5.7 **import** java.util.Scanner;

**public** **class** Prelim3\_6{

**public** **static** **void** main(String[] args) {

System.***out***.print("Enter three integers: ");

Scanner a = **new** Scanner(System.***in***);

**int** b = a.nextInt();

**int** c = a.nextInt();

**int** d = a.nextInt();

**if**(b<=c && c<=d) System.***out***.println("in order");

**else** **if**(d<=c && c<=b) System.***out***.println("in order");

}

}

E6.2 a)

**public** **class** Prelim3\_7{

**public** **static** **void** main(String[] args) {

**int** i=2;

**int** sum = 0;

**while**(i<=100)

{sum = sum +i;

i = i+2;

}

System.***out***.println(sum);

}

}

b) **public class Prelim3\_8{**

**public static void main(String[] args) {**

**int i=1;**

**int sum = 0;**

**while(i<=100)**

**{**

**sum = sum + i\*i;**

**i = i+1;**

**}**

**}**

**}**

c) **public** **class** Prelim3\_9{

**public** **static** **void** main(String[] args) {

**int** i=0;

// int sum =1;

**while**(i<=20)

{

System.***out***.print(i + " ");

System.***out***.println(Math.*pow*(2, i));

i = i+1;

/\* i = i+1;

sum = sum \* 2;\*/

}

}

}

E6.3 a) import java.util.\*;

public class PrelimE6\_3a{

public static void main(String args[])

{

Scanner a = new Scanner (System.in);

System.out.print("Enter integers (This program calculates the largest and smallest input):");

int firstInput = a.nextInt();

int largest = firstInput;

int smallest = firstInput;

while (a.hasNextInt())

{

int input = a.nextInt();

if (input > largest)

{

largest = input;

}

if (input < smallest)

{

smallest = input;

}

}

b)

2.

public class Prelim2 {

public static void main(String args[]) {

int num = 666;

switch (num){

case 3:

System.out.println("Wow!");

case 9:

System.out.println("Hello");

System.out.println("World");

break;

case 1:

case 2:

System.out.println("Low balled");

break;

case 7:

System.out.println("Lucky You!");

break;

default:

System.out.println("Please be");

System.out.println("Carefull!");

}

}

}