1a.
```
if (grade >= 90)
   {
      System.out.print(“Great job!”);
   }
```

1b.
```
if (number < 20 || number > 50)
   {
      System.out.print(“Error”);
   }
```

1c.
```
if (y <100)
   {
      y += 2;
   }
```

2.
```
if (num1 > num2);
  {
     System.out.println(“First number is larger.”);
  }

  else if (num2 > num1);
  {
     System.out.println(“Second number is larger.”);
  }

  else
  {
     System.out.println(“Numbers are equal.”);
  }
```

3a. First blank is “even” and second blank is “odd”

3b.
```
switch (num % 2)
   {
      case 0:
            System.out.print("Even");
            break;

      case 1:
```

```
            System.out.print("Odd");
            break;
      }
```

4a. `int randomInt = (int)(Math.random() * (50 - 1 + 1) + 1);`

4b. `int randomInt = (int)(Math.random() * (100 - 20 + 1) + 20);`

4c. `int randomInt = (int)(Math.random() * (50 - 1 + 1) + 1);`

5. The program is using > and < instead of >= and <=. Because of this, it displays nothing when the age is 18 or 65.

6a. True
6b. False
6c. True
6d. True
6e. True
6f. True
6g. True

8a. True
8b. False: If-else if is different because it only allows one branch to execute and it is easier to read when compared to a nested if statement.
8c. False: It must evaluate to an integer, NOT a double
8d. True
8e. False: You need to use the (int) cast on the random number
8f. True
8g. True
8h. False: ! is evaluated first
8i. True
8j. False: You need to use Math.abs, not just abs.