1. (25 points.) Write a program that reads a string consisting of two digits using `JOptionPane.showInputDialog()`, for instance ”53”. It then prints the second digit, the number of times indicated by the first digit. So in our case the program would print 33333.

2. (10 points) In the following, state the type and value of each of the following expressions. If the expression contains an error, write `invalid` as the type and omit the value.

<table>
<thead>
<tr>
<th>EXPRESSION</th>
<th>TYPE</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>150/10.0</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>20 * 3 % 4 / 2 - 5 % 5</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>(5 + 4.0)/ 3 *2 + 5 / 6</td>
<td>------</td>
<td>------</td>
</tr>
</tbody>
</table>

3. (15 points)
(a) (5 points) In

```java
char ch1, ch2;
ch1 = 'c';
ch2 =(char)( ch1 + 1);
```

What is stored in `ch2`?

(b) (5 points) In

```java
int digit;
char ch1 = '5';
digit = ch1 - '0';
```

What is the error here?

(c) (5 points) Knowing that the ascii code for ’0’ is 48, fill in the blank in so that ’3’ is stored in `ch1`

```java
int digit = 51;
char ch1;
ch1 =______________;
```
4. (5 points) Circle all of the following that will not cause a compilation error?

a) String silly = JOptionPane.showInputDialog("blah");
b) int silly = JOptionPane.showInputDialog("blah blah");
c) System.out.println ( 'silly ' );
d) System.out.println ( "silly" );

5. (15 points) How many times would the for loops beginning with the following statements be executed? If there is a compilation error, type INVALID

_____ a. for(int j = 6; j <= 6; j++)
_____ b. for(int j = 6; j >= 0; j--)
_____ c. for(char ch = '1'; j <= '9'; j++)
_____ d. for(int j = 0; j < 6; j++)
_____ e. for(char ch = "12"; j <= "13"; j++)