

Test cases for Java solution. Above each picture are the tested inputs in the same order they appear in the picture.

## Name:

First name and last name are handled identically, so they are not tested separately here.

- Invalid
  - EOT
  - Empty
  - sally!? (invalid chars)
  - bob fred (multiple regex matches)
  - !!!sally!!! (regex start and end anchors)
  - alice   (extra whitespace)
  - aaab (too long)

```
Name:
First name:
Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
Invalid input. Try again.
Enter 1 to 50 characters.
```

```
Name:
First name:
Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:

Invalid input. Try again.

Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
sally!?

Invalid input. Try again.

Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
bob fred

Invalid input. Try again.

Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
!!!sally!!!

Invalid input. Try again.

Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
   alice

Invalid input. Try again.

Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaab

Invalid input. Try again.
Enter 1 to 50 characters.
```

- Valid
  - a (min length)
  - aa (max length)
  - Alice-Bob (valid length and chars general)

```
Name:
First name:
Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
a

Last name:
Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa

2 integers:
```

```
Last name:
Enter 1 to 50 characters.
Uppercase and lowercase latin letters, apostrophes, and hyphens are allowed:
Alice-Bob

2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
|
```

## Ints:

- Invalid
  - EOT
  - Empty
  - 123a (invalid chars)
  - 12,345 (invalid chars comma)
  - 123 123 (multiple matches)
  - aa123bb (regex start and end anchors)
  - 123 (extra whitespace)
  - -2147483649 (below min value)
  - 2147483648 (above max value)

```
2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:

Invalid input. Try again.

First integer:
Enter one integer in the range [-2147483648, 2147483647].
```

```
2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:

Invalid input. Try again.

First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
123a

Invalid input. Try again.

First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
12,345

Invalid input. Try again.

First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
123 123

Invalid input. Try again.

First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
aa123bb

Invalid input. Try again.

First integer:
```

```
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
123
```

Invalid input. Try again.

```
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
-2147483649
```

Invalid input. Try again.

```
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
2147483648
```

Invalid input. Try again.

```
First integer:
Enter one integer in the range [-2147483648, 2147483647].
```

- Valid
  - -2147483648 (min value)
  - 2147483647 (max value)
  - 0 (zero)
  - +0 (positive zero)
  - -0 (negative zero)
  - 0019 (leading zeros)
  - 30380 (positive general)
  - -25740 (negative general)

```
2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
-2147483648

Second integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
2147483647
```

```
Name of an existing input file of at most 130048 bytes to read from:
Enter the name of a plain text file in the current directory:
```

```
2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
0

Second integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
+0

Name of an existing input file of at most 130048 bytes to read from:
```

```
2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
-0

Second integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
0019

Name of an existing input file of at most 130048 bytes to read from:
```

```
2 integers:
First integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
30380

Second integer:
Enter one integer in the range [-2147483648, 2147483647].
The integer can include a sign (+ or -) and cannot include commas:
-25740

Name of an existing input file of at most 130048 bytes to read from:
```

## Sum and Product:

- Invalid
  - None (ints are already individually validated, and no overflow occurs)
- Valid
  - 123 and 0 (add and multiply nonzero and zero)
  - 0 and 123 (add and multiply zero and nonzero)
  - 0 and 0 (add and multiply both zero)
  - -2147483648 and -2147483648 (add and multiply both most negative)
  - 2147483647 and 2147483647 (add and multiply both most positive)

- 2147483647 and -2147483648 (add and multiply most positive and most negative)
- -2147483648 and 2147483647 (add and multiply most negative and most positive)
- 123 and -456 (add and multiply positive and negative general)
- -123 and 456 (add and multiply lt negative and positive general)
- 123 and 456 (add and multiply positive and positive general)
- -123 and -456 (add and multiply negative and negative general)

First integer: 123	First integer: 0	First integer: 0
Second integer: 0	Second integer: 123	Second integer: 0
Sum: 123	Sum: 123	Sum: 0
Product: 0	Product: 0	Product: 0

First integer: -2147483648	First integer: 2147483647	First integer: 2147483647
Second integer: -2147483648	Second integer: 2147483647	Second integer: -2147483648
Sum: -4294967296	Sum: 4294967294	Sum: -1
Product: 4611686018427387904	Product: 4611686014132420609	Product: -4611686016279904256

First integer:  
-2147483648

Second integer:  
2147483647

Sum:  
-1

Product:  
-4611686016279904256

First integer:  
123

Second integer:  
-456

Sum:  
-333

Product:  
-56088

First integer:  
-456

Second integer:  
123

Sum:  
-333

Product:  
-56088

First integer:  
123

Second integer:  
456

Sum:  
579

Product:  
56088

First integer:  
-123

Second integer:  
-456

Sum:  
-579

Product:  
56088



## Input File:

- Invalid
  - EOT
  - Empty
  - afile\$.txt (invalid chars)
  - file.txt file.txt (multiple matches)
  - !!!file.txt@@@ (regex start and end anchors)
  - file.txt (extra whitespace)
  - file.2txt (wrong extension)
  - file (no extension)
  - adirectory.txt (directory)
  - ../file.txt (accessing file in other directory)
  - file2.txt (file doesn't exist)
  - .txt (too short)
  - aa.txt (too long)
  - a.txt (file too large)

Name of an existing input file of at most 130048 bytes to read from:  
Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
afile\$.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
file.txt file.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
!!!file.txt@@@

Invalid input. Try again.

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
file.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
file.2txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.

```

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
adirectory.txt

The provided filename refers to a directory.
Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
../file.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file2.txt

The specified file does not exist.
Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.

```

---

```

Name of an existing input file of at most 130048 bytes to read from:
Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
a.txt

The specified file exceeds 130048 bytes.
Invalid input. Try again.

Enter the name of a plain text file in the current directory.

```

- Valid
  - a.txt (min length)
  - aa.txt (max length)
  - file.txt (valid name and contents general case)

Name of an existing input file of at most 130048 bytes to read from:  
Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
a.txt

Password:

Input file name:  
a.txt

Input file contents:  
This is line 0  
This is line 1  
This is line 2  
This is line 3  
This is line 4  
This is line 5  
This is line 6  
This is line 7  
This is line 8  
This is line 9  
This is line 10  
This is line 11  
This is line 12

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
aaa.txt

Password:

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and  
%^&\*()=+-),

```
Input file name:  
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa.txt
```

```
Input file contents:
```

```
This is line 0  
This is line 1  
This is line 2  
This is line 3  
This is line 4  
This is line 5  
This is line 6  
This is line 7  
This is line 8  
This is line 9  
This is line 10  
This is line 11  
This is line 12
```

```
Name of an existing input file of at most 130048 bytes to read from:
```

```
Enter the name of a plain text file in the current directory.
```

```
No parts of the filepath other than the name of the file may be specified.
```

```
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt  
file.txt
```

```
Password:
```

```
Input file name:  
file.txt
```

```
Input file contents:
```

```
This is line 0  
This is line 1  
This is line 2  
This is line 3  
This is line 4  
This is line 5  
This is line 6  
This is line 7  
This is line 8  
This is line 9  
This is line 10  
This is line 11  
This is line 12
```

Password:

Retyped password uses the same regex as the original password, so tests validating the regex are not repeated for the retyped password.

## Original

- [illegible]

Password:  
Enter a password including at least one uppercase latin letter, lowercase latin  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any chara  
The password must be at least 10 and at most 50 characters.

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any chara  
The password must be at least 10 and at most 50 characters.

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin  
%^&\*()\_+=-).

Password:  
Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any characters that are not listed above.  
The password must be at least 10 and at most 50 characters.  
abcABC123![/

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any characters that are not listed above.  
The password must be at least 10 and at most 50 characters.  
abcABC123! abcABC123!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any characters that are not listed above.  
The password must be at least 10 and at most 50 characters.  
///abcABC123!\\

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any characters that are not listed above.  
The password must be at least 10 and at most 50 characters.  
abcABC123!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any characters that are not listed above.  
The password must be at least 10 and at most 50 characters.  
ABCABC123!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special  
%^&\*()\_+=-).  
The password may contain multiple of each of these but may not contain any characters that are not listed above.  
The password must be at least 10 and at most 50 characters.  
abcabc123!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special

```

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special character.
%^&*()_+=-~.
The password may contain multiple of each of these but may not contain any characters that are not listed above.
The password must be at least 10 and at most 50 characters.
abcABCABC!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special character.
%^&*()_+=-~.
The password may contain multiple of each of these but may not contain any characters that are not listed above.
The password must be at least 10 and at most 50 characters.
abcABC1234

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special character.
%^&*()_+=-~.
The password may contain multiple of each of these but may not contain any characters that are not listed above.
The password must be at least 10 and at most 50 characters.
abcABC12!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special character.
%^&*()_+=-~.
The password may contain multiple of each of these but may not contain any characters that are not listed above.
The password must be at least 10 and at most 50 characters.
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA12!

Invalid input. Try again.

Enter a password including at least one uppercase latin letter, lowercase latin letter, decimal digit, and special character.
%^&*()_+=-~.
The password may contain multiple of each of these but may not contain any characters that are not listed above.
The password must be at least 10 and at most 50 characters.

```

- Valid
  - abcABC123! (min length)
  - aaaA1! (max length)
  - !@#a\$bcAdBC1D234 (valid chars and length general case)



```
Password:
Enter a password including at least one uppercase latin l
%^&*()_+=-).
The password may contain multiple of each of these but ma
The password must be at least 10 and at most 50 character
abcABC123!
```

```
Retype your password:
abcABC123!
```

```
Name of a currently nonexistent output file to write to:
Enter the name of a plain text file in the current direct
```

```
Password:
Enter a password including at least one uppercase latin let
%^&*()_+=-).
The password may contain multiple of each of these but may
The password must be at least 10 and at most 50 characters.
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA1!
```

```
Retype your password:
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaA1!
```

```
Name of a currently nonexistent output file to write to:
```

```
Password:
Enter a password including at least one uppercase latin lett
%^&*()_+=-).
The password may contain multiple of each of these but may n
The password must be at least 10 and at most 50 characters.
!@#a$bcAdBC1D234
```

```
Retype your password:
!@#a$bcAdBC1D234
```

```
Name of a currently nonexistent output file to write to:
```

## Retyped

- Invalid
  - Original: abcABC123!      Retyped: abcABC123  
(fail regex test and do not reach hash validation)
  - Original: abcABC123!      Retyped: abcABC12!3  
(pass regex test but fail hash validation)

<pre> Password: Enter a password including at least one uppercase latin letter, one lowercase latin letter, one digit and one special %^&amp;*()_+=-). The password may contain multiple of each of these but may not contain spaces. The password must be at least 10 and at most 50 characters long. abcABC123!  Retype your password: abcABC123  Invalid input. Try again.  Retype your password: </pre>	<pre> Password: Enter a password including at least one uppercase latin letter, one lowercase latin letter, one digit and one special %^&amp;*()_+=-). The password may contain multiple of each of these but may not contain spaces. The password must be at least 10 and at most 50 characters long. abcABC123!  Retype your password: abcABC12!3  Invalid input. Try again.  Retype your password: </pre>
---	--

- Valid
  - Original: abcABC123!      Retyped: abcABC123!
  - (pass regex for chars and length and pass hash validation)

```

Password:
Enter a password including at least one uppercase latin letter, one lowercase latin letter, one digit and one special
%^&*()_+=-).
The password may contain multiple of each of these but may not contain spaces.
The password must be at least 10 and at most 50 characters long.
abcABC123!

Retype your password:
abcABC123!

Name of a currently nonexistent output file to write to:
Enter the name of a plain text file in the current directory:

```

## Output File:

Note: No possible issue with specifying the same file as was specified for input, since the output file cannot overwrite any other file (and the input file is read in while it is being validated).

- [illegible]

```
Name of a currently nonexistent output file to write to:
Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
afile$.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file.txt file.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
!!!file.txt@@@

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file.2txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
```

```

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
adirectory.txt

The specified file already exists, and overwriting is not allowed.
Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
../file.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
file.txt

The specified file already exists, and overwriting is not allowed.
Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
.txt

Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa.txt


Invalid input. Try again.

Enter the name of a plain text file in the current directory.
No parts of the filepath other than the name of the file may be specified.
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens, followed by .txt

```

- Valid
  - a.txt (min length)
  - aa.txt (max length)
  - file.txt (valid name and contents general case)

Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be speci  
The filename may include 1-50 alphanumeric characters, periods, under  
a.txt

  /mnt/c/U/a/OneDrive /Sc/Autumn 2022/TCSS 483/Defend Code

```
≡ a.txt ×
≡ a.txt
1 First name:
2 a
3
4 Last name:
5 a
6
7
8 First integer:
9 0
10
11 Second integer:
12 0
13
14 Sum:
15 0
16
17 Product:
18 0
19
20
21 Input file name:
22 a.txt
23
24 Input file contents:
25 This is line 0
26 This is line 1
27 This is line 2
28 This is line 3
29 This is line 4
30 This is line 5
31 This is line 6
32 This is line 7
33 This is line 8
34 This is line 9
35 This is line 10
36 This is line 11
37 This is line 12
38
39
```

Name of a currently nonexistent output file to write to:  
Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens.  
aaa.txt

  /mnt/c/U/a/OneDrive /Sc/Autumn 2022/TCSS 483/Defend Code

```
===== a.txt X
===== a.txt
1 First name:
2 a
3
4 Last name:
5 a
6
7
8 First integer:
9 0
10
11 Second integer:
12 0
13
14 Sum:
15 0
16
17 Product:
18 0
19
20
21 Input file name:
22 a.txt
23
24 Input file contents:
25 First name:
26 a
27
28 Last name:
29 a
30
31
32 First integer:
33 0
34
35 Second integer:
36 0
37
38 Sum:
39 0
40
41 Product:
42 0
43
44
45 Input file name:
46 a.txt
47
48 Input file contents:
49 This is line 0
```

Name of a currently nonexistent output file to write to:  
Enter the name of a plain text file in the current directory.  
No parts of the filepath other than the name of the file may be specified.  
The filename may include 1-50 alphanumeric characters, periods, underscores, and hyphens.  
file.txt

> /mnt/c/U/a/OneDrive /Sc/Autumn 2022/TCSS 483/Defend Code

```
file.txt x
file.txt
1 First name:
2 a
3
4 Last name:
5 a
6
7
8 First integer:
9 0
10
11 Second integer:
12 0
13
14 Sum:
15 0
16
17 Product:
18 0
19
20
21 Input file name:
22 a.txt
23
24 Input file contents:
25 First name:
26 a
27
28 Last name:
29 a
30
31
32 First integer:
33 0
34
35 Second integer:
36 0
37
38 Sum:
39 0
40
41 Product:
42 0
43
44
45 Input file name:
46 a.txt
47
48 Input file contents:
49 This is line 0
50 This is line 1
51 This is line 2
52 This is line 3
53 This is line 4
```