

22C:16 Quiz 1

Date: Jan 24th, 2012

1. Consider the following program

```
number = int(raw_input("Enter a number: "))
while number > 0:
    print number % 10
    number = number / 10
```

- (a) What output does it produce, given input 3179?

9
7
1
3

- (b) Describe in one sentence, what the program does, in general.

This program prompts a number from the user (`number`), while `number` is greater than 0, the program prints the right-most digit of `number` by calculating the remainder (using modulus) of `number` divided by 10, and then removes the right-most digit by using integer division by 10.

2. For each expression below, specify its type and value. For expression (6), suppose that the user types `10 + 20` in response to the prompt. For expression (7), suppose that the `math` module has been imported.

	Expression	Type	Value
1	<code>17/2</code>	8	<code>int</code>
2	<code>17/2.0</code>	8.5	<code>float</code>
3	<code>float(17/2)</code>	8.0	<code>float</code>
4	<code>str(17/2.0)</code>	"8.5"	<code>string</code>
5	<code>"hello" + "100"</code>	"hello100"	<code>string</code>
6	<code>raw_input("number?")</code>	"10 + 20"	<code>string</code>
7	<code>math.sqrt(9)</code>	3.0	<code>float</code>
8	<code>float(1) + 1</code>	2.0	<code>float</code>
9	<code>int("337")</code>	337	<code>int</code>
10	<code>float("300." + "100")</code>	300.1	<code>float</code>