

CSCA08H Worksheet: Variable Assignment Statements

1. Using the Assignment Statement

(a) Consider this code:

```
k = 5
```

Write an assignment statement that creates a new variable `j` that refers to three times `k`'s value:

```
j = 3 * k
```

(b) Consider this code:

```
x = 4  
y = 5  
x = 2
```

After the code above is executed, to which value does `x` refer? 2

After the code above is executed, to which value does `y` refer? 5

(c) Consider this code:

```
x = 4  
y = x + 2  
x = y + 1
```

Draw the memory!!!

After the code above is executed, to which value does `x` refer? 7

After the code above is executed, to which value does `y` refer? 6

2. Swapping variable values *An extra exercise to try at home.*

Assume that variables `a` and `b` have been assigned `int` values. Write code to swap which values `a` and `b` refer to: after your statements are executed, `a` should refer to the value that `b` used to refer to, and `b` should refer to the value that `a` used to refer to. Hint: use a third variable.

Start with this state of memory:

<u>a</u>	<u>id1</u>	id1:int
		<input type="text"/>
<u>b</u>	<u>id2</u>	id2:int
		<input type="text"/>

Once you have written the code, trace your code using the memory model to confirm that it correctly swaps the values: