

1 FUNctions

1.1 What would Python display?

```
>>> from operator import add, mul
>>> def f(x, y):
...     print('h', y)
...     return add(add(x, y), 1)
>>> def g(x, y):
...     print('u', x)
...     return mul(mul(x, y), 2)
>>> f(2, g(2, f(500, 2)))
```

2 Types

2.1 What would Python display for each expression?

- (a) $3 + 4$
- (b) `'3' + 4`
- (c) `'3 + 4'`
- (d) `'3' + '4'`

2.2 Why does Python behave this way?

3 Moar FUNctions

3.1 `>>> print(add(6, 1), print(7))`

```
3.2 >>> print(print("Welcome to"), print("CS 61A"))
```

User-defined Functions

```
3.3 >>> def boom():  
...     return 1 / 0  
...
```

```
>>> boom
```

```
>>> boom()
```

```
3.4 >>> def square(x):  
...     return x * x  
...  
>>> def happy(num):  
...     print(num)  
...     return num  
...  
>>> def sad(num):  
...     return num  
...     return 1 / 0  
...  
>>> print(square(sad(5)), happy(3))
```

4 Beep Boop Bam

4.1 What would Python display?

```
>>> x = 6  
>>> def beep(x):  
...     print(x)  
  
>>> def boop(x):  
...     y = x  
...     x = 7  
...     print(x)  
  
>>> y = beep(6)  
  
>>> boop(28)  
  
>>> y + beep(8)
```