

Section Handout #3: Foundations

Question 1: Dog Years

Everyone knows that our furry friends age at a different rate than humans. Write a program that asks the user for a human age (expressed as a whole number) and prints the equivalent dog age using the fact that there are seven dog years per human year.

```
Enter an age in human years: 13
The age in dog years is 91
```

Question 2: Running Total

Write a program that asks a user to continuously enter numbers and print out the running total so far. Once you get the program working, see if you can modify it so that the program stops when the user enters a 0.

```
Enter a value: 7
Running total is 7

Enter a value: 3
Running total is 10

Enter a value: 5
Running total is 15

Enter a value:
```

If you have time... see FizzBuzz on the next page

Optional Question 3: FizzBuzz

In the game Fizz Buzz, players take turns counting up from one. If a player's turn lands on a number that's divisible by 3, she should say "fizz" instead of the number, and if it lands on a number that's divisible by 5, she should say "buzz" instead of the number. If the number is both a multiple of 3 and of 5, she should say "fizzbuzz" instead of the number.

It is an interesting problem in control flow and parameter usage. Write a function called **fizzbuzz** which accepts as a parameter an integer called **n**. The function should count up until and including **n**, fizzing and buzzing the correct numbers along the way. Once it's done, the function should return how many numbers were fizzed or buzzed along the way.

Next, complete your program by writing a **main** function that reads in an integer from the user and plays fizzbuzz until it counts to the number. Here's a sample run of the program (user input is *italicized*):

```
Number to count to: 17
```

```
1
```

```
2
```

```
Fizz
```

```
4
```

```
Buzz
```

```
Fizz
```

```
7
```

```
8
```

```
Fizz
```

```
Buzz
```

```
11
```

```
Fizz
```

```
13
```

```
14
```

```
Fizzbuzz
```

```
16
```

```
17
```

More extra time? Installing Pillow

Get a head start on next week by installing Pillow

```
> python3 -m pip install Pillow
...prints stuff...
Successfully installed Pillow
```