

# Exercise: Understanding and Using Functions

## Part One: Making Function Headers

Write a header for each of these functions, taking into account the input and output information. (Write **just** the header, from **def** to **:**.)

1) Function `computePay` accepts hours and pay rate and returns the pay amount.

**def computePay (hours, pay):**

2) Function `printGreeting` accepts a person's name and title and prints a salutation using the `print` command.

**def printGreeting (name, title):**

3) Function `computeAge` accepts the month, day and year and returns the age in days.

**def computeAge (birthMonth, birthday, birthYear):**

## Part Two: Recognizing Errors

Each problem shows a function call and the function header, and indicates whether the function includes a return statement. Identify any errors.

1) `x = aFunction (7, 12)`                      `def aFunction( y ): # returns one value`

**aFunction only takes one argument, not two**

2) `z = someFun ( x )`                      `def someFun( 14 ): # returns 1 values`

**function header must show variable names, not literals**

3) `x = anudderFunction ( "Fred" )`    `def anudderFunction ( s ) # has no return`

**If the function returns nothing, we shouldn't have "x =" in the call**

4) `x = 6`                                      `def funkyFunction ( v )`  
`y = funkyFunction ( x )`                      `return "Here's the number " + v`

**We pass the function an integer, but the function is using it as a string**

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## Part Three: Writing a Function

Write the function `formatDate` that accepts a month, day, and year (all integers) and returns a string with the formatted date (for instance `February 18, 2003` ).

```
def formatDate ( m, d, y ):

    if m == 1:
        name = "January"
    elif m == 2:
        name = "February"
    elif m == 3:
        name = "March"
    elif m == 4:
        name = "April"
    elif m == 5:
        name = "May"
    elif m == 6:
        name = "June"
    elif m == 7:
        name = "July"
    elif m == 8:
        name = "August"
    elif m == 9:
        name = "September"
    elif m == 10:
        name = "October"
    elif m == 11:
        name = "November"
    else:
        name = "December"

    formattedDate = name + " " + d + ", " + y

    return formattedDate
```