Week 3 Discussion Worksheet

1.

```
def convert_negs(lsts):
    """
    Write a function that uses list comprehension to
    convert negative numbers to positive and
    multiplies positive numbers by 2.

    >>> lsts = [[1,3,-11,6], [2,-5,-9,12], [3,19,-42]]
    >>> convert_negs(lsts)
    [[2, 6, 11, 12], [4, 5, 9, 24], [6, 38, 42]]
    """
```

2. Write 3 assert statements for the previous function that validate the input (Think about what needs to be true for your code to run without issue!)

3.

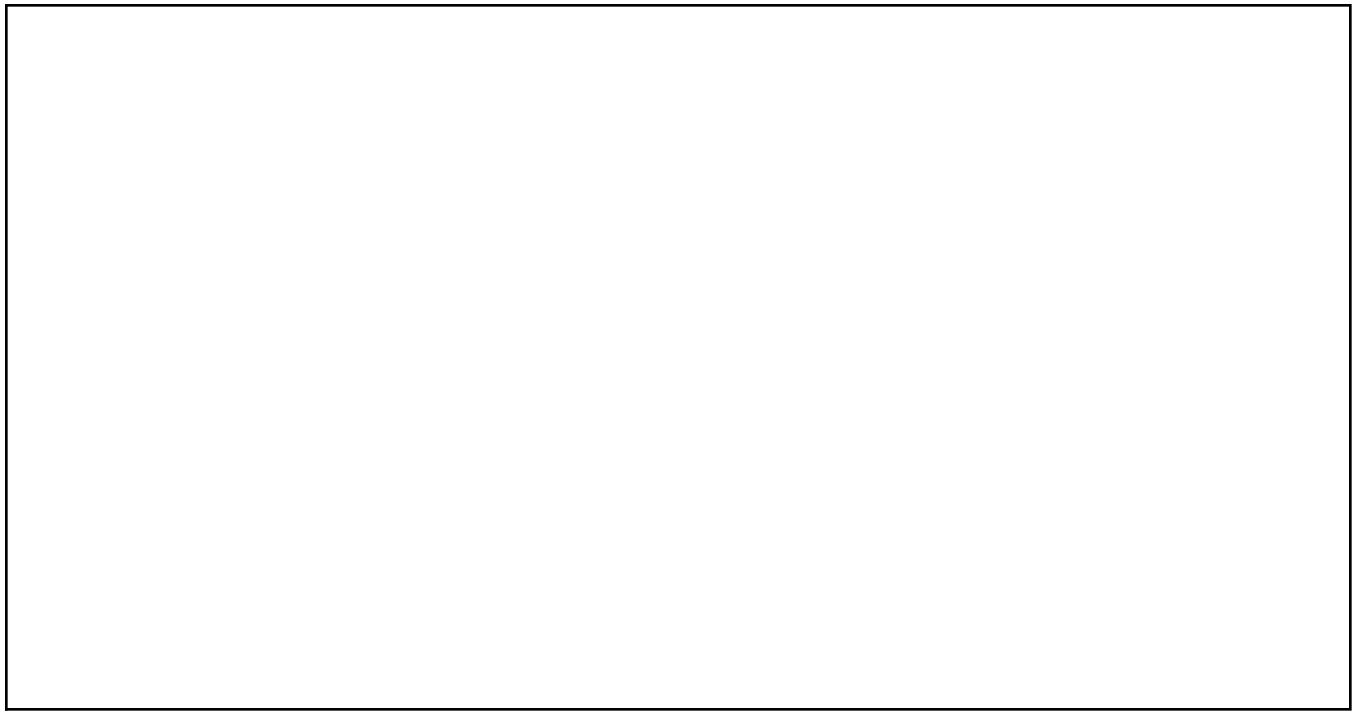
```
def dict_comp(key_lst, val_lst):
    """
    Write a function that takes in 2 lists
    and transforms them before converting them
    into a dictionary using dict comp.
    Transformations:
        1) keys should all be upper case
        2) values should be the square root of the
            original value

    >>> dict_comp(['max','ben','nikki'],[4,16,64])
    {'MAX': 2.0, 'BEN': 4.0, 'NIKKI': 8.0}
    """
```

4.

```
def class_reviews(reviews_filepath):
    """
    Write a function that finds all reviews that mention "DSC20".
    Each review is separated by a newline character "\n".
    Write the result into a new file named "files/DSC20_reviews".

    >>> class_reviews('files/raw_reviews.txt')
    >>> with open('files/DSC20_reviews.txt', 'r') as f:
    print("the number of reviews mentioning DSC20: " + \
      str(len(f.read().split('\n'))))
    3
    """
```



5. Given the following function, translate it into an equivalent lambda function:

```
def convert_lst(lst):
    """
    Function that multiplies every odd
    element by 3 and even element by -2.
    >>> convert_lst([1,2,3,4,5])
    [3, -4, 9, -8, 15]
    """
    return [x*3 if x%2==1 else x*-2 for x in lst]
```