Week 3 Take Home

1) What's wrong with this code?

Look at the following snippets of code and identify what is causing the issue. How can the code be fixed?

1A)

```
1. x = 5
2. y = 10
3.
4. print ("Is x greater than or equal to y?")
5. print (x => y)
```

1B)

```
1. pet1 = "cat"
2. pet2 = "dog"
3.
4. if pet1 = pet2:
5.     print ("The pets are the same!")
6. else:
7.     print ("The pets are different")
```

1C)

```
1. age1 = 34
2. age2 = "52"
3.
4. if age1 > age2
5.     print ("Person 1 is older")
6. else
7.     print ("Person 2 is older")
```

2) What does this code do?

Look at the following snippets of code and write down what the output is.

2A)

```
1.  def mystery_function(num):
2.      if num > 0:
3.          print num
4.      else:
5.          print (num * -1)
```

mystery_function(5)

mystery_function(0)

mystery_function(-17)

2B)

```
1.  def mystery_function(currentHour, name):
2.      if currentHour >= 6:
3.          if currentHour < 12:
4.              print ("Good morning, " + name + "!")
5.          else:
6.              if currentHour < 17:
7.                  print ("Good afternoon, " + name + "!")
8.              else:
9.                  if currentHour < 24:
10.                     print ("Good evening, " + name + "!")
11.                 else:
12.                     print ("Invalid time.")
13.     else:
14.         if currentHour >=0:
15.             print ("Good evening, " + name + "!")
16.         else:
17.             print ("Invalid time.")
```

mystery_function(15, "Joy")

mystery_function(3, "Tom")

mystery_function(10, "Anna")

mystery_function(24, "Matt")

3) Finish the code

Given the function header, complete the code inside of the function to perform the correct functionality.

3A)

In a dog pageant, two dogs compete in three rounds. The winner is the dog with the higher sum of the three scores. Print out the name of the dog that won.

Sample input: get_winner("Spot", 5, 8, 3, "George", 9, 2, 1)
Sample output: "Spot is the winner of the dog pageant!"

Sample input: get_winner("Cornelius", 2, 3, 5, "Dog", 1, 7, 2)
Sample output: "Cornelius and Dog tied in the dog pageant!"

```
def get_winner(dog1_name, dog1_score1, dog1_score2, dog1_score3,
               dog2_name, dog2_score1, dog2_score2, dog2_score3):
```

3B)

Given a pet's species (cat or dog) and its age in human years, print its age in cat or dog years.
For this problem, use the following conversions (they are not accurate, by the way):
1 Human Year = 7 Dog Years
1 Human Year = 10 Cat Years

Sample input: convert_to_pet_years("dog", 5)
Sample output: "The dog is 35 years old"

Sample input: convert_to_pet_years("cat", 9)
Sample output: "The cat is 90 years old"

def convert_to_pet_years(species, age):