1) Assume the following statements have already been executed:

```python
a = 20
b = 4
c = "great"
d = "8.6"
```

For each of the following expressions, evaluate the expression and write the resulting value, or identify the error in the code that would prevent it from running.

a) \( b + d \)

b) \( \text{int( float(d) )} \% b \)

c) \( a \div b \times (c + '!') \)

d) \( b \times a == \text{round( float(d) )} - 1 \times a / 2 \)
2) What is the output of the following program?

```python
seats = 100
checked_in = 97
standby = 2

if (checked_in < seats):
    print('There is room for stand-by fliers')
    if standby > seats - checked_in:
        print('Some standby passengers may take this flight')
    elif standby <= seats - checked_in:
        print('All standby fliers may take this flight')
    else:
        print('There will be vacant seats')
else:
    print('There is no room for more passengers!')

if (checked_in > seats):
    print('This flight is overbooked!')
elif (checked_in + standby >= seats):
    print('This flight is full.')
```

3) From the text: Write a function `findHypot`. The function will be given the length of two sides of a right-angled triangle and it should return the length of the hypotenuse. (Hint: `x ** 0.5` will return the square root, or use `sqrt` from the math module)
4) Code and Swap Exercise – One More Time with More Enthusiasm

a) Write a program that requests a phrase from the user and adds a little more enthusiasm to the phrase. The last word chanted in the new phrase should be the most enthusiastic. The output of the program should exactly match the following:

Enter a phrase: Go Fight Win
The new phrase is 'Go! Fight!! Win!!!'

b) Now swap code with your partner. Trace through the code you have just received. Determine if the output would match the above for the given input, if not mark and describe the problem(s) and how to fix it/them below.
c) Swap back, review your partner’s comments on your code and discuss.

5) From the text: Write a function `is_rightangled` which, given the length of three sides of a triangle, will determine whether the triangle is right-angled. Assume that the third argument to the function is always the longest side. It will return True if the triangle is right-angled, or False otherwise.
6) Round Robin Coding

a) With your partner use computation thinking to break down the program specified below into an algorithm in English. Remember to describe the tasks that are part of the algorithm not the code.

Write a program that calculates a swimmer’s personal best and average times in a particular swim for the season. The program should ask the swimmer’s name, the race distance, and then ask how many times the participant swam the event. The program should then ask the time for each swim.

The program’s output should match the following exactly. Text in red is the user input.

What is the swimmer's name? **Yoshi**
Enter a race name: **200m Free**
How many times did the swimmer participate? **6**

Race 1 Time: **56.4**
Race 2 Time: **57.1**
Race 3 Time: **57.0**
Race 4 Time: **56.8**
Race 5 Time: **55.9**
Race 6 Time: **56.3**

Yoshi's best time for the 200m Free is **55.9**.
Yoshi's average time for the season is **56.6**.
b) Write the program with your partner by taking turns. On each turn, you may either write one line of code, following from the code already written or change something in the code already written. If you write one line of code explain to your partner what task or part of a task that line accomplishes. If you feel you need to change something in the code explain to your partner why you are doing so.