Python Worksheet Problems

You can use either python locally if you have it installed or you can use this online browser to do these problems.

https://www.online-python.com/

1. Create a function for the problem stated below.

The parameter weekday is True if it is a weekday, and the parameter vacation is True if we are on vacation. We sleep in if it is not a weekday or we're on vacation. Return True if we sleep in.

```
sleep_in(False, False) → True
sleep_in(True, False) → False
sleep_in(False, True) → True
```

2. Create a function for the problem stated below.

Given two int values, return their sum. Unless the two values are the same, then return double their sum.

```
sum_double(1, 2) \rightarrow 3
sum_double(3, 2) \rightarrow 5
sum_double(2, 2) \rightarrow 8
```

3. Create a function for the problem stated below.

Given a non-empty string and an int n, return a new string where the char at index n has been removed. The value of n will be a valid index of a char in the original string (i.e. n will be in the range 0..len(str)-1 inclusive).

```
missing_char('kitten', 1) → 'ktten'
missing_char('kitten', 0) → 'itten'
missing_char('kitten', 4) → 'kittn'
```

4. Create a function for the problem stated below.

Given 2 int values, return True if one is negative and one is positive. Except if the parameter "negative" is True, then return True only if both are negative.

```
pos_neg(1, -1, False) \rightarrow True
pos_neg(-1, 1, False) \rightarrow True
pos_neg(-4, -5, True) \rightarrow True
```

5. Create a function for the problem stated below.

Given a string, we'll say that the front is the first 3 chars of the string. If the string length is less than 3, the front is whatever is there. Return a new string which is 3 copies of the front.

```
front3('Java') → 'JavJavJav'
front3('Chocolate') → 'ChoChoCho'
front3('abc') → 'abcabcabc'
```

6. Create a function for the problem stated below.

Given a string, return a new string where "not" has been added to the front. However, if the string already begins with "not", return the string unchanged.

```
not_string('candy') → 'not candy'
not_string('x') → 'not x'
not_string('not bad') → 'not bad'
```