1. **Lists:**

   (a) Write a program that takes the following list, asks the user from which position elements should be deleted, reads in the number, and deletes 5 elements from that position on. As a final step, the program should print the modified list. Make sure that the program does not crash if there are fewer than 5 elements left.

   ```python
   months = ['Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul', 'Aug', 'Sep', 'Oct', 'Nov', 'Dec']
   ```

   (b) Extend the program so that the list has the number of days inserted after each month (the number of each month should be hardcoded). And instead of deleting 5 months, the program retrieves those months and their days from the list and prints sentences like "March has 31 days." This time, the number a user indicates the number of the month. For example, make sure that if the user types in 2, he/she will get February as the month.

2. **Conditionals:**

   Write a program that accepts a number between 20 and 50 and doubles it until the number is greater than 100. If the number is not in the specified range, the user should be made aware of that.

3. **Mystery:** What does the following program do?

   ```python
   numbers = [1, 3, 5, 7, 11, 13, 17, 19]
   numbers.sort()
   nn = int(input('new number: '))
   if nn in numbers:
       print('tough luck')
   elif nn > 20:
       numbers.append(nn)
       print('attached')
   else:
       numbers.insert(0, nn)
       print('first!')
   ```