

5a. Write a function called `isphonenumbers()` to recognise a pattern 415-555-4242 without using regular expression and also write the code to recognise the same pattern using regular expression.

```
import re
```

```
def isphonenumbers(numStr):  
    if len(numStr) != 12:  
        return False  
    for i in range(len(numStr)):  
        if i==3 or i==7:  
            if numStr[i] != "-":  
                return False  
        else:  
            if numStr[i].isdigit() == False:  
                return False  
    return True
```

```
def chkphonenumbers(numStr):  
    ph_no_pattern = re.compile(r'^\d{3}-\d{3}-\d{4}$')  
    if ph_no_pattern.match(numStr):  
        return True  
    else:  
        return False
```

```
ph_num = input("Enter a phone number : ")  
print("Without using Regular Expression")  
if isphonenumbers(ph_num):  
    print("Valid phone number")  
else:  
    print("Invalid phone number")
```

```
print("Using Regular Expression")  
if chkphonenumbers(ph_num):  
    print("Valid phone number")  
else:  
    print("Invalid phone number")
```