```
In [1]: def ff_cal_char_rept0(st, n):
            times = 0
            flag = False
            for i in range(0, len(st)):
                if i == 0:
                    times = 1
                else:
                    if st[i - 1] != st[i]:
                        times = 1
                    else:
                        times += 1
                    if times == n:
                        flag = True
                        break
            return flag
```

```
In [2]: def ff_cal_char_rept1(st, n):
            times = 1
            for i in range(1, len(st)):
                times = 1 if st[i - 1] != st[i] else times + 1
                if times == n:
                    return True
            return False
```

```
In [3]: def ff_cal_char_rept2(st, n):
            st_ = set(st)
            if len(st) - len(st_) < n-1:
                return False
            for i in st_:
                if i*n in st:
                    return True
            return False
```

```
In [4]: m1 = '888888881'
        m2 = '123456789'
        m3 = '888888811'
        m4 = '123123'
        m5 = 'ININININININININININIIII'
        m6 = m5*10
        m7 = '888888878'
        m8 = 'QWERTYUIOP_*&^%$#@!ASDFGH)ZXCVBNMLKJ'
        m9 = '88888888888'
        m = [m1, m2, m3, m4, m5, m6, m7, m8, m9]
```

```
In [7]: for i in m:
            print(i+':')
            %time ff_cal_char_rept0(i, n=8)
            %time ff_cal_char_rept1(i, n=8)
            %time ff_cal_char_rept2(i, n=8)

            print(ff_cal_char_rept0(i, n=8), ff_cal_char_rept1(i, n=8), ff_cal_char_rept2(i, n=8))
            print('\n')
```

```
888888881:
CPU times: user 8 µs, sys: 2 µs, total: 10 µs
Wall time: 14.1 µs
CPU times: user 7 µs, sys: 1e+03 ns, total: 8 µs
Wall time: 11.9 µs
CPU times: user 8 µs, sys: 0 ns, total: 8 µs
Wall time: 12.2 µs
True True True


123456789:
CPU times: user 17 µs, sys: 3 µs, total: 20 µs
Wall time: 19.3 µs
CPU times: user 0 ns, sys: 11 µs, total: 11 µs
Wall time: 33.1 µs
CPU times: user 8 µs, sys: 1 µs, total: 9 µs
Wall time: 14.1 µs
False False False


888888811:
CPU times: user 9 µs, sys: 1 µs, total: 10 µs
Wall time: 16.2 µs
CPU times: user 9 µs, sys: 2 µs, total: 11 µs
Wall time: 15 µs
```

```
CPU times: user 7 µs, sys: 0 ns, total: 7 µs
Wall time: 11.2 µs
False False False


123123:
CPU times: user 6 µs, sys: 1 µs, total: 7 µs
Wall time: 10.5 µs
CPU times: user 7 µs, sys: 0 ns, total: 7 µs
Wall time: 10 µs
CPU times: user 5 µs, sys: 1 µs, total: 6 µs
Wall time: 9.78 µs
False False False


ININININININININININIII:
CPU times: user 8 µs, sys: 1 µs, total: 9 µs
Wall time: 13.1 µs
CPU times: user 7 µs, sys: 1 µs, total: 8 µs
Wall time: 11.7 µs
CPU times: user 7 µs, sys: 0 ns, total: 7 µs
Wall time: 10.7 µs
False False False


ININININININININININIIIININININININININININININIIIININININININININININININIIIININININININININININININIIIININININI
NININININIIIININININININININININININIIIININININININININININININIIIININININININININININININIIIININININININININININII
IININININININININININININIII:
CPU times: user 34 µs, sys: 0 ns, total: 34 µs
Wall time: 37 µs
CPU times: user 25 µs, sys: 5 µs, total: 30 µs
Wall time: 33.9 µs
CPU times: user 0 ns, sys: 10 µs, total: 10 µs
Wall time: 14.1 µs
False False False


888888878:
CPU times: user 6 µs, sys: 1 µs, total: 7 µs
Wall time: 11.7 µs
CPU times: user 6 µs, sys: 1 µs, total: 7 µs
Wall time: 10.7 µs
CPU times: user 7 µs, sys: 0 ns, total: 7 µs
Wall time: 10.7 µs
False False False


QWERTYUIOP_*&^%$#@!ASDFGH)ZXCVBNMLKJ:
CPU times: user 11 µs, sys: 2 µs, total: 13 µs
Wall time: 16.7 µs
CPU times: user 11 µs, sys: 0 ns, total: 11 µs
Wall time: 14.5 µs
CPU times: user 8 µs, sys: 1 µs, total: 9 µs
Wall time: 12.4 µs
False False False


88888888888:
CPU times: user 6 µs, sys: 1 µs, total: 7 µs
Wall time: 11 µs
CPU times: user 0 ns, sys: 7 µs, total: 7 µs
Wall time: 10.7 µs
CPU times: user 6 µs, sys: 1 µs, total: 7 µs
Wall time: 10.5 µs
True True True
```