

In [1]:

```
def fracbin(x, m=10):
    r = x
    b = []
    for k in range(1, m):
        if r >= 2**(-k):
            b.append(1)
            r = r - 2**(-k)
        else:
            b.append(0)
    return ''.join(map(str,b))
```

In [2]:

```
fracbin(0.8125, 8)
```

Out[2]:

```
'1101000'
```

In [3]:

```
fracbin(0.1,25)
```

Out[3]:

```
'000110011001100110011001'
```

In [4]:

```
fracbin(0.1,100)
```

Out[4]:

```
'00011001100110011001100110011001100110011001100110100000000000  
00000000000000000000000000000000'
```

What happened here?!