1. Exercise 3 at the end of the Lecture Notes chapter on Monte Carlo methods. Note that in Matlab, the uniform random number generator if RAND.

2. Exercise 4, same chapter. The flow chart of the code would be something like the following:

```plaintext
t = 0;
X = 0;
while (t <= T) {
    t = t + expSamp(λ)
    X = X + σ · normSamp();
}
```

test if (x > B) and update counts