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Period 2

1.

a.
```
public static int hailstoneLength (int n) {
    int c = 1;
    while (n != 1) {
        if (n % 2 == 0) {
            n /= 2;
        } else {
            n = 3n+1;
        }
        c++;
    }
    return c;
}
```

b.
```
public static boolean isLongSeq (int n) {
    if (hailstoneLength(n) > n) {
        return true
    }
    return false;
}
```

c.
```
public static propLong(int n) {
    int c = 0;
    for (int i = 1; i <= n; i++) {
        if (isLongSeq(i)) {
            c++;
        }
    }
    return (double) c / n;
}
```

2.
```
public class GameSpinner {
    private int sections;
    private int run = 0;
    private int prev = -1;
    public GameSpinner (int sections) {
        this.sections = sections;
    }
    public int currentRun () {
        return run;
    }
    public int spin() {
```

```
public int spin() {
    int num = 1 + Main.Random.nextInt(3);
    if (prev != num) {
        prev = num;
        run = 1;
    } else {
        run += 1;
    }
    return num;
}
}
```