Assignments for Probability 2

A 1

A fair coin is flipped 10 times. What is the probability of getting exactly 6 heads?

```
In [5]: from scipy.stats import binom

        n, p, k = 10, 0.5, 6
        prob = binom.pmf(k, n, p)
        print(prob)
```

```
0.205078125
```

A 2

Assume that 45% of the population has brown eyes. If 12 people are randomly selected, what is the probability that exactly 5 of them have brown eyes?

```
In [6]: from scipy.stats import binom

        n, p, k = 12, 0.45, 5
        prob = binom.pmf(k, n, p)
        print(prob)
```

```
0.22249823843265812
```