

# MannanNaeem\_HW5

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

## 0.1 Assignments for Probability 2

### 0.1.1 A 1

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

```
[13]: # Write your solution code here
# You can use scipy.stats.binom to create binomial distribution objects
# For example:
# from scipy.stats import binom
# binom.pmf(k, n, p)
prob = binom.pmf(k=6, n=10, p=0.5)
print("probability for A1 {:.2f}%".format(prob*100))
```

probability for A1 20.51%

### 0.1.2 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?

```
[12]: # Write your solution code here
# You can use scipy.stats.binom to create binomial distribution objects
# For example:
# from scipy.stats import binom
# binom.pmf(k, n, p)
prob = binom.pmf(k=5, n=12, p=0.45)
print("probability for A2 {:.2f}%".format(prob*100))
```

probability for A2 22.25%

```
[ ]:
```