1 Summary

my summary

As you can see the average is $\overline{x} = 6$

We assume it is a normal distribution because of the central limit thereom.[1]

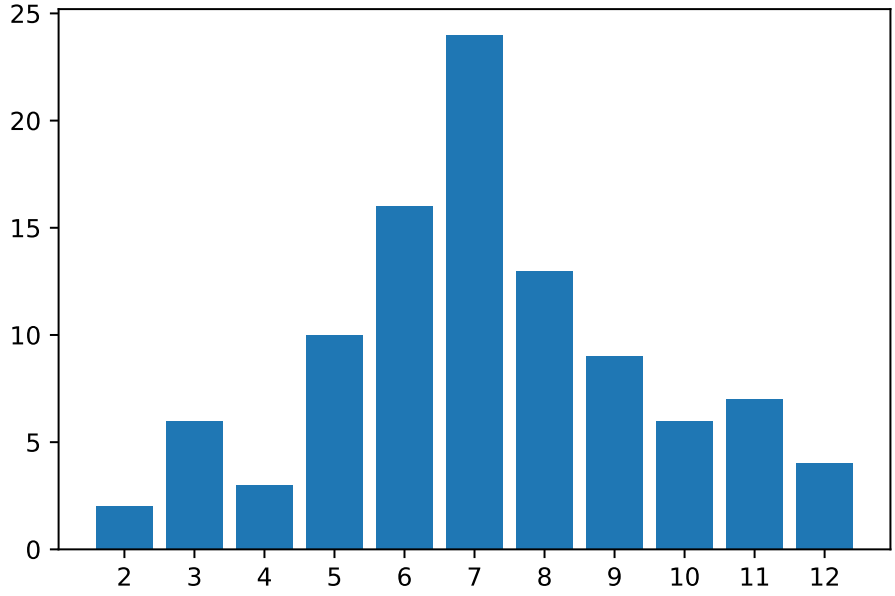

Figure 1: Histogram of rolls of two dice

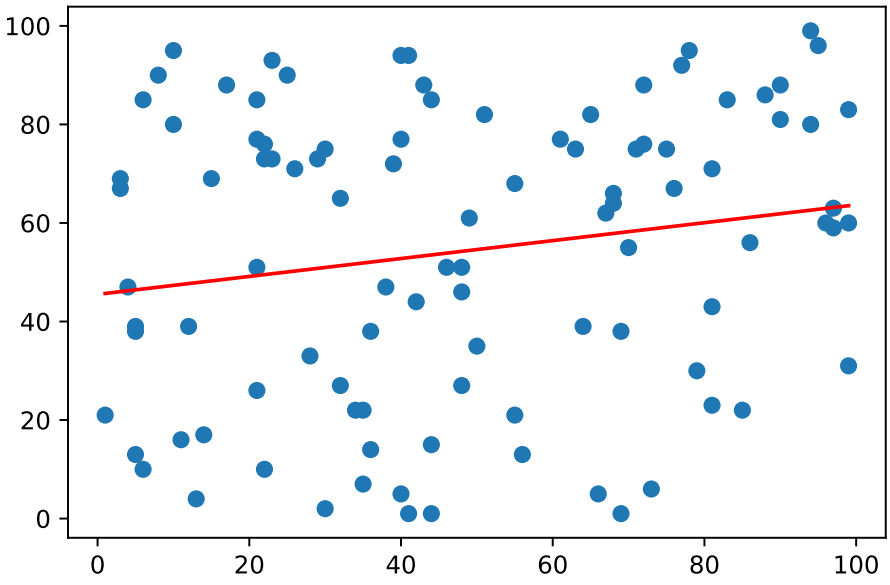

Figure 2: Linear regression

Contents

2 References

1. Wikipedia contributors. (2021). *Central limit theorem — Wikipedia, the free encyclopedia.* https://en.wikipedia.org/w/index.php?title=Central_limit_theorem&oldid=1053264438

3 Appendix

```
# Histogram of rolls of two dice

import numpy as np
import matplotlib.pyplot as plt
a = np.random.randint(1, 6 + 1, 100)
b = np.random.randint(1, 6 + 1, 100)
both = a+b
plt.xticks(range(2, 12 + 2))
plt.bar(np.arange(2, 13), np.bincount(both, minlength=13)[2:])
plt.show()
```

```
# Linear regression

x = np.random.randint(1, 100, 100)
y = np.random.randint(1, 100, 100)
model = np.polyfit(x, y, 1)
predict = np.poly1d(model)

x_line = range(1, 100)
y_line = predict(x_line)

plt.scatter(x, y)
plt.plot(x_line, y_line, c = "r")
plt.show()
```