

Practice Class Test Template

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1 Introduction

Digitalis is a heart medicine similar to toxins found in a genus of plants commonly known as foxglove. These plants can be poisonous towards humans and pet. As part of digitalis experiments, 144 domestic male and female adult cats had their heart weight in grams (Hwt) and body weight in kilograms (Bwt) measured.

2 Exploratory Data Analysis

Let's take a look at our data.

Table 1: Summary statistics on heart weight by sex of 144 adult cats.

Sex	n	Mean	St.Dev	Min	Q1	Median	Q3	Max
F	47	9.2	1.4	6.3	8.35	9.1	10.1	13.0
M	97	11.3	2.5	6.5	9.40	11.4	12.8	20.5

So we have our data in a tidy format with Bwt and Hwt as continuous variables and Sex as a categorical variable. Let's take a look at the spread of Hwt in each sex.

```
ggplot(cats, aes(x = Sex, y = Hwt)) +  
  geom_boxplot() +  
  labs(x = "Sex", y = "Heart weight (grams)",  
       title = "Heart weights in 144 adult cats")
```

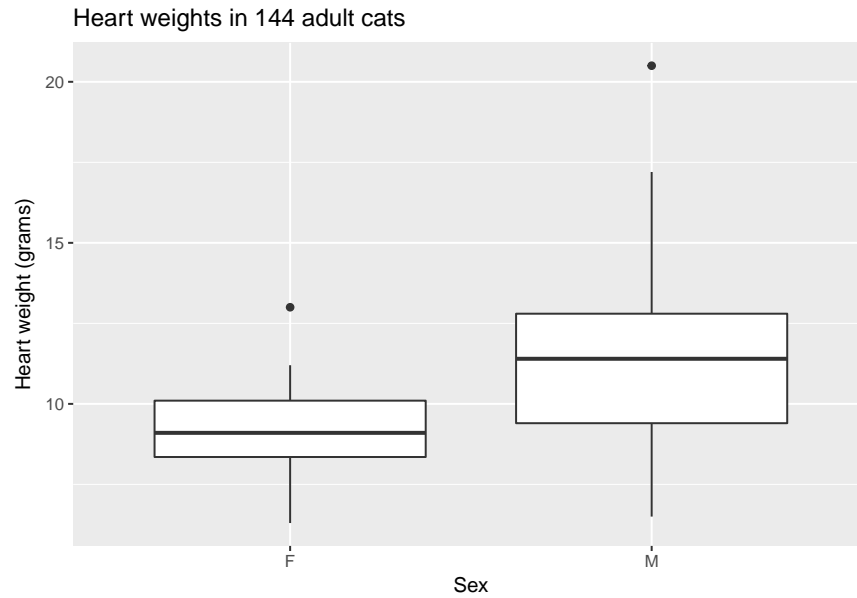


Figure 1: Heart weights by sex.

The male cat population has a larger spread than the female population. The male cat population is slightly left skewed. Each population has one outlier.

3 Formal Data Analysis

4 Conclusions