

Lab 4 – Analyzing Proportions

Sakai Question/Answer key

1. The difference between right and left ears is no longer significant when the observed proportion of right ears is **0.68**. This proportion has a P-value of **0.11**.
2. A) The proportion of genes on the Y chromosome is **0.12**.
B) The final P-value for the number of spermatogenesis genes observed on the Y chromosome is **0.0065**.
3. A) The total number of wallets returned was **101**.
B) This corresponds to a proportion of **0.4**.
C) The two tailed P-value is **0.017**.
4. The wallet data suggest that the true proportion of individuals who return a found wallet is significantly different from 0.5. **True**
5. According to the binomial distribution, if 10 out of 15 participants preferred the expensive wine would you expect the null hypothesis of no preference to be rejected, or not rejected? **Not rejected**
6. In the pea plant experiment, the probability that exactly $\frac{1}{4}$ of the offspring are yellow is **0.2023**.
7. A) The probability of a piece of toast landing butter side down is **0.620**.
B) The 95% confidence interval for the probability of a piece of toast landing butter side down is **$0.611 < p < 0.630$** .
8. According to the surgical data, the proportion of surgeries followed by surgical site infections is **0.042**. The 95% confidence interval is **$0.0405 < p < 0.0436$** .
9. The observed proportion of buttered toast landing butter side down is significantly different than the null hypothesis. **True**
10. The mean % of children immunized for DPT is **86.5**.
11. The histogram for DPT immunization is which shape? **Skewed Left**
12. A) The number of countries with 60-70 internet users per 100 people is **10**.
B) The number of countries with 0-10 personal computers per 100 people is **110**.
13. The mean life expectancy at birth for females is **70.1**. The mean life expectancy at birth for males is **65.4**.
14. A) The 95% confidence interval for the % of the population that is female is **$49.55 < \mu < 50.24$** .
B) The minimum percent female observed in any country is **32%**.

No calculations on SPSS were required.