**Q-5) Ans- Fantaloons**

FALTOONS.CSV

**Test and CI for Two Proportions: Weekdays, Weekend**

**Method**

|  |
| --- |
| Event: Weekdays = Male |
| p₁: proportion where Weekdays = Male and Weekend = Female |
| p₂: proportion where Weekdays = Male and Weekend = Male |
| Difference: p₁ - p₂ |

**Descriptive Statistics: Weekdays**

|  |  |  |  |
| --- | --- | --- | --- |
| **Weekend** | **N** | **Event** | **Sample p** |
| Female | 233 | 66 | 0.283262 |
| Male | 167 | 47 | 0.281437 |

**Estimation for Difference**

|  |  |
| --- | --- |
| **Difference** | **95% CI for Difference** |
| 0.0018247 | (-0.087613, 0.091262) |

*CI based on normal approximation*

**Test**

|  |  |  |  |
| --- | --- | --- | --- |
| Null hypothesis | H₀: p₁ - p₂ = 0 | | |
| Alternative hypothesis | H₁: p₁ - p₂ ≠ 0 | | |
| **Method** | | **Z-Value** | **P-Value** | |
| Normal approximation | | 0.04 | 0.968 | |
| Fisher's exact | |  | 1.000 | |

**P-value 0.968 > 0.05, so accepting Ho and rejecting Ha.**

**Males and females walking into store in weekdays and weekend are same.**