Riley Payung

Professor Romanelli

CDS 290-001

September 26, 2020

Homework #3

# Problem 1

|  |  |  |  |
| --- | --- | --- | --- |
|  | DAY | NIGHT | TOTAL |
| Win | 36 | 9 | 45 |
| Loss | 27 | 10 | 37 |
| Total | 63 | 19 | 82 |

Night wins: 9/19 = 0.4737 or 47.37%. Day wins: 36/63 = 0.5715 or 57.15%.

Difference between percentages is 9.78%.

The ratio of day win percentage is   
36/82 = 0.4390 or 43.9% (over total games)   
36/45 = 0.8 or 80% (over total wins)

The ratio of night-win percentage is   
9/82 = 0.10975 or 10.975% (over total games)   
9/45 = 0.2 or 20% (over total wins)

# Problem 2

|  |  |  |  |
| --- | --- | --- | --- |
|  | HOME | ROAD | TOTAL |
| Made | 190 | 174 | 364 |
| Missed | 36 | 40 | 76 |
| Total | 226 | 214 | 440 |

Made at home: 190/226 = ~0.8407 or ~84.07%. Made on the road: 174/214 = ~0.8131 or ~81.31%.  
Note: I rounded the fourth decimal place.

Difference between percentages is ~2.76%

The ratio of made at home is   
190/440 = ~0.4318 or ~43.18% (over total goals attempted)  
190/364 = ~0.5220 or ~52.2% (over total made goals)

The ratio of made on the road is   
174/440 = ~0.3955 or ~39.55% (over total goals attempted)  
174/364 = ~0.4780 or ~47.8% (over total made goals)

# Problem 3

|  |  |  |  |
| --- | --- | --- | --- |
|  | Teams with four 30-game starters | Teams without four 30-game starters | TOTAL |
| Made the playoffs | 19 | 53 | 364 |
| Did not make the playoffs | 9 | 189 | 198 |
| Total | 28 | 242 | 270 |