NBA Regression Analysis

Y Variable: Total Points Scored in 2017 NBA Season

X Variable: Total Minutes Played in the 2017 NBA Season

Regression Analysis

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SUMMARY OUTPUT | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Regression Statistics* | |  |  |  |  |  |  |  |
| Multiple R | 0.90492126 |  |  |  |  |  |  |  |
| R Square | 0.81888249 |  |  |  |  |  |  |  |
| Adjusted R Square | 0.81857706 |  |  |  |  |  |  |  |
| Standard Error | 200.246291 |  |  |  |  |  |  |  |
| Observations | 595 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| ANOVA |  |  |  |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |  |  |  |
| Regression | 1 | 107508994 | 107508994 | 2681.11745 | 3.497E-222 |  |  |  |
| Residual | 593 | 23778456.1 | 40098.577 |  |  |  |  |  |
| Total | 594 | 131287451 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
| Intercept | -80.816352 | 13.5095084 | -5.982183 | 3.8087E-09 | -107.34865 | -54.284049 | -107.34865 | -54.284049 |
| Minutes Played | 0.50936002 | 0.0098371 | 51.779508 | 3.497E-222 | 0.49004023 | 0.5286798 | 0.49004023 | 0.5286798 |

Regression Equation

Y (Points) = 0.5094 x (Minutes) – 80.8163

Do the results have a good R Square value?

Yes, the R squared value of 0.812 indicates that there is a strong correlation between minutes played and amount of points scored in a season.

Is your choice statistically reliable?

That question depends on what exactly this is trying to measure. Looking at how many minutes someone plays would generally be a good way to figure out who the best scorers are because those players tend to play more anyways. Minutes played is really a proxy for other talents, so this stat does not help explain what makes these players better than others at all.

Explain what your coefficients mean.

The value of .5094 for x means that for every 1 unit increase in minutes played, an NBA player is expected to have scored 0.5094 more points throughout the season.

Scatter Plot: