Correlation between substance representing that tier and its typical price in several games using a tier system

Kyumin Nam 💿

January 25, 2023

Abstract. Substances representing tier (Iron, Bronze, Silver, Gold, Platinum, Diamond) and it's typical price (USD/gram) in several games using a tier system have positive correlation [1, 2, 5].

Keywords. tier, correlation.

Table 1 is the table of substances representing tier: Iron, Bronze, Silver, Gold, Platinum, Diamond and its typical price per gram in several games using a tier system [1, 2]. Here, we can draw a scatterplot of Table 1, we have Figure 1. From Figure 1, we can easily know that substances representing tier and their typical price has a positive correlation from Figure 1 [5]. However, the price of diamonds is exceptionally high, but we can remove diamonds from Figure 1. Then, from Figure 2, it seems there is no correlation but using linear regression, we can know that it has a positive correlation too [5].

Substances representing tier	$ ext{ Price } (USD/g) $
Iron (Fe)	\$0.0001220
Bronze $(Cu + Sn)$	\$0.009351 - \$0.02950, avg. \$0.0194255
Silver (Ag)	\$0.7623
Gold (Au)	\$62.260
Platinum (Pt)	\$34.024
Diamond (C)	\$48,000 - \$337,500, avg. \$192750

Table 1: Table of substances representing tier and it's typical price on Jan. 24, 2023 [2, 3]

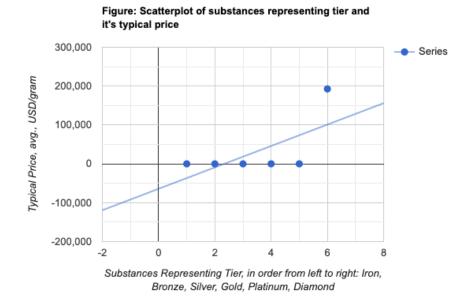


Figure 1: Scatterplot of substances representing tier and it's typical price

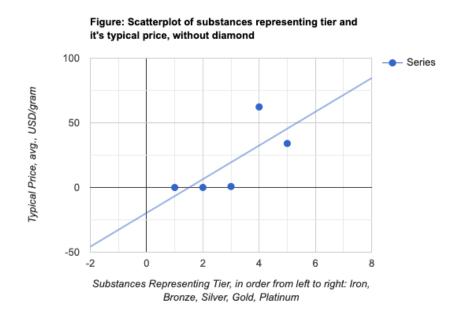


Figure 2: Scatterplot of substances representing tier and it's typical price, without diamond

References

- [1] Wikimedia Foundation. (2023, January 21). League of Legends. Wikipedia. Retrieved January 25, 2023, from https://en.wikipedia.org/wiki/League_of_Legends
- [2] Wikimedia Foundation. (2023, January 11). PUBG: Battlegrounds. Wikipedia. Retrieved January 25, 2023, from https://en.wikipedia.org/wiki/PUBG:_Battlegrounds
- [3] Daily Metal prices. Daily Metal Price: Free Metal Price Tables and Charts. (n.d.). Retrieved January 25, 2023, from https://www.dailymetalprice.com/
- [4] Diamond prices: A complete guide. The Diamond Pro. (2023, January 25). Retrieved January 25, 2023, from https://www.diamonds.pro/education/diamond-prices/
- [5] Wikimedia Foundation. (2022, November 22). Correlation. Wikipedia. Retrieved January 25, 2023, from https://en.wikipedia.org/wiki/Correlation