

4 Devil

1. The number of undergraduate applicants to Duke in 2020.

Answer: 49,555, facts.duke.edu

2. The sum of the course numbers of all math courses offered at Duke this semester.

Answer: 34,964, DukeHub registration

3. Total number of physical books in Duke libraries as of 2020.

Answer: 7,990,426, <https://library.duke.edu/about/reports-quickfacts>

4. The number of total Duke alumni.

Answer: 179,263, facts.duke.edu from Spring 2020

5. The number of views on the 5th most viewed TikTok video ever.

Answer: 659.2 million, <https://www.popbuzz.com/internet/viral/most-viewed-video-tiktok/>

6. The total number of copies of Minecraft sold.

Answer: 238,000,000, https://en.wikipedia.org/wiki/List_of_best_selling_video_games

7. The number of characters in the longest city name.

Answer: 58, Llanfairpwllgwyngyllgogerychwyrndrobwl'llantysiliogogoch in Wales
<https://www.worldatlas.com/articles/the-10-longest-place-names-in-the-world.html>

8. Let the number of legal chess positions be N . Round $\ln N$ to the nearest integer.

Answer: 103. Total positions is 4.11×10^{44} through 4.85×10^{44}

https://en.wikipedia.org/wiki/Shannon_number *Number of sensible chess games by John Trump*

9. The 2021st largest prime.

Answer: 17579

10. π^4 .

Answer: 97.40909103400242.

11. The unique integer n such that $2^n \leq 2021! \leq 2^{n+1}$.

Answer: 19283.

12. $12^{12} - 11^{11} + 10^{10} - 9^9 + 8^8 - 7^7 + 6^6 - 5^5 + 4^4 - 3^3 + 2^2 - 1^1$

Answer: $8 * 10^{12}$ ish, 8640417354592

13. The maximum overall team score earned at this year's Duke Math Meet.

Answer: 118