The Hugo Ryder Crossnumber

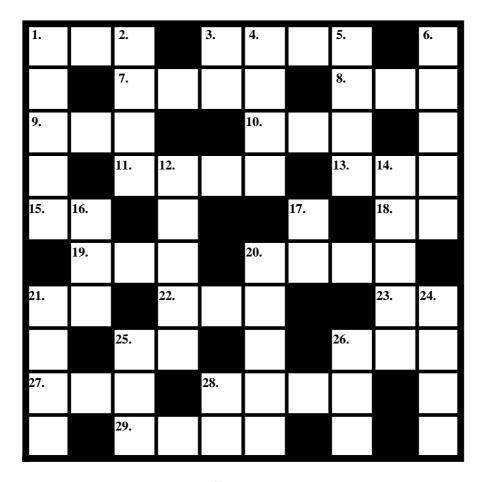


Figure 1:

Across Clues

- 1. A square number.
- **3.** A multiple of 1102.
- 7. This number has a digit sum of 9.
- 8. A square number.
- 9. A square number.
- 10. A square number.
- 11. This number has a digit sum of 18.
- 13. A cube number.
- 15. A prime number.
- 18. A prime number.
- 19. The middle digit of this number is equal to 19 minus the number of 9s in this crossnumber, once completed.
- **20.** a! b!, where a and b are integers.
- 21. This number has a digit sum of 13.
- **22.** A cube number.
- 23. The digit sum of 15 Across.
- 25. This number is a product of two distinct primes.
- 26. A square number.
- 27. A square number.
- 28. A cube number.
- **29.** A 4th power.

Down Clues

- 1. A palindromic number with a digit sum of 18.
- **2.** A power of 2, written backwards.
- **3.** This number is a product of two distinct primes.
- **4.** A power of 2.
- 5. A cube number.
- **6.** A multiple of 11111.
- **12.** A multiple of 11111.
- 14. A palindromic number with a digit sum greater than 10.
- 16. A cube number.
- 17. A multiple of 7.
- **20.** A permutation of the digits $\{1, 2, 3, 4, 5\}$ with a longest monotonic subsequence of length four.
- **21.** A multiple of 2020.
- **24.** A 5th power.
- **25.** A cube number.
- **26.** A palindromic number with a digit sum of 7.
- 28. A multiple of 3.