

10-01 digit problem

Make the number 1001 using copies of a single digit with the following operations (in addition to parentheses):

- Standard operations: $+$, $-$, \times , \div
- Exponentiation of two numbers: \square^\square
- Factorial: $\square!$
- Square root: $\sqrt{\square}$
- Concatenation (i.e. “glueing”) of digits (only of the original digit used): dd

How few copies can you use? Your score is the total number of copies used over all 9 digits.

- (1) Using the digit 1
- (2) Using the digit 2
- (3) Using the digit 3
- (4) Using the digit 4
- (5) Using the digit 5
- (6) Using the digit 6
- (7) Using the digit 7
- (8) Using the digit 8
- (9) Using the digit 9