

π Day, March 14, 2024
Vincent Chan

(1) Get as close as possible to the number 2024 using the digits 3, 1, 4, 1 (in order). You are allowed to use only the following operations (in addition to parentheses):

- Standard operations: $+$, $-$, \times , \div
- Square root of a number: $\sqrt{\square}$
- Exponentiation of two numbers: \square^{\square}
- Radicals: $\sqrt[n]{\square}$
- Negation of a number: $-\square$
- Factorial: $\square!$
- Percentage: $\square\%$
- Decimal (only with an original digit): $0.d$
- Repeating decimal (only with an original digit): $0.\overline{d}$