Enhancements for Monte Carlo Tree Search in Super Mario

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Abstract

Your abstract goes here blablabla ...

1 Some Sums

Here are a few sums[1] I know.

$$
\begin{aligned}
1 + 2 + 3 + \cdots + n &= \frac{n(n+1)}{2} &\quad (1)\\
1^2 + 2^2 + 3^2 + \cdots + n^2 &= \frac{n(n+1)(2n+1)}{6} &\quad (2)\\
1^3 + 2^3 + 3^3 + \cdots + n^3 &= \frac{n^2(n+1)^2}{4} &\quad (3)
\end{aligned}
$$

I can find the sum of the first 10 squares easily with formula (2) above.

[1] Additions

2 A Cool Relationship

Take a look at formulas (1) and (3) on page 2 of section 1. Notice that the right side of (3) is the square of the right side of (1).