

The Eighth Annual

## Utah Math Olympiad

Saturday, March 21, 2020 1:00 - 4:00 pm

Participation is free!
Prize money is available for the top scorers.

For more information and to register, visit www.utahmath.org.

Registration ends March 14.

Contact us at contact@utahmath.org.

## Sample Problem

Define  $A_1, A_2, \ldots$  recursively by setting  $A_1 = 1, A_2 = 2$ , and

$$A_n = \left(\frac{n^2}{2} - \frac{2}{(n-1)^2}\right) A_{n-1} + A_{n-2}$$

for all n > 2. Find and prove an explicit formula for  $A_n$  in terms of a well-known sequence.

## **Locations:**

The Waterford School Math Building (400) Library

Brigham Young University
Talmage Building
Room TBA