

University of Colorado
Department of Mathematics
Problem of the Month
October

Let x_0, \dots, x_{2n} be a finite sequence of real numbers with the properties:

- (i) $x_0 = x_{2n} = 1$,
- (ii) $x_i = (x_{i-1} + x_{i+1})/3$ for $0 < i < 2n$.

Find the value of x_n .

Visit <http://math.colorado.edu/PoM.html> for details of the Problem of the Month Competition.