



LEWIS AND CLARK COLLEGE
Department of Mathematical Sciences

PUZZLE OF THE WEEK (2/23/2017 - 3/1/2017)

Let n be a positive integer. Find, in terms of n , the value of the determinant of the matrix

$$\begin{pmatrix} 1 & 2 & 3 & \dots & n-2 & n-1 & n \\ 2 & 3 & 4 & \dots & n-1 & n & n \\ 3 & 4 & 5 & \dots & n & n & n \\ \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ n-1 & n & n & \dots & n & n & n \\ n & n & n & \dots & n & n & n \end{pmatrix}$$

and justify your claim.

- The only correct solution of the Puzzle of the Week #5 was submitted by Leo DiGiosia. Congratulations to Leo!
- One possible complete solution of the Puzzle #5 is posted online. (Look for the Puzzle of the Week announcements on the departmental webpage.)
- Solvers should include their full name and some kind of a contact information. Solutions should be submitted to **Iva Stavrov** in BoDine 305; email submissions are encouraged (istavrov at lclark). Solutions should be received by the end of the day on **March 1st, 2017**.