



UNIVERSITY OF WISCONSIN  
**PLATTEVILLE**  
DEPARTMENT OF MATHEMATICS

PROBLEM OF THE WEEK #2  
(Spring 2017)

Let  $N$  be a positive integer. Our job is to pick integers  $1 = a_1 < a_2 < \cdots < a_{10} = N$ , satisfying  $a_k \geq a_{k-1} + k$  for  $2 \leq k \leq 10$ . In how many different ways can we do this job?

[Please fully explain your answer.]

Solutions should be submitted to Cinda Furry, in Gardner Hall 435, by 4:00 P.M. on Wednesday, February 8, 2017.

Every week, the best solution submitted earns a \$10 Platteville gift certificate; the top scorer each semester also wins a cash award. Good luck!

You can always see the Problem of the Week (and complete rules) online at:

<http://uwpmath.weebly.com/>