



UNIVERSITY OF WISCONSIN  
**PLATTEVILLE**  
DEPARTMENT OF MATHEMATICS

PROBLEM OF THE WEEK #4  
(Spring 2021)

Dr. Black owns 8 different pairs of socks. When he does laundry, paired socks are always washed together, and the number of pairs of socks in a load follows a uniform distribution between 0 and 8 pairs.

The other day Dr. Black was pulling socks out of the dryer and noticed that he had pulled out 6 single socks without completing a pair! What is the probability there were exactly 6 pairs of socks in this load?

[Please fully explain your answer.]

Email your solution to [kwonmi@uwplatt.edu](mailto:kwonmi@uwplatt.edu) by 4:00pm on Wednesday, February 24, 2021.

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/>