



UNIVERSITY OF WISCONSIN
PLATTEVILLE
DEPARTMENT OF MATHEMATICS

PROBLEM OF THE WEEK #3
(Fall 2018)

I work at a sea-level observation station. There's a mountain northeast of my station, and to the east-southeast, there's a 700 ft hill.

From my station, the mountain peak is at an elevation of 52° above the horizon. From the top of the hill, the mountain peak is due north, at a 37° elevation.

How high is the mountain?

[Please fully explain your answer.]

Solutions should be submitted to Cinda Furry, in Gardner Hall 435, by 4:00 P.M. on Wednesday, October 3, 2018.

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/>