

## Problem of the Week #3 (Spring 2017)

Let  $f(x) = \sqrt{x^2 + 1}$ . Prove: If  $b \le -|a|$ , then no tangent line to f passes through (a, b).

[Please fully explain your answer.]

Solutions should be submitted to Cinda Furry, in Gardner Hall 435, by 4:00 P.M. on Wednesday, February 15, 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/