PROBLEM OF THE WEEK #6
(Fall 2022)

Notice that $2^2 + 2^2 + 3^2 = 17$, which is a prime number.
Suppose that a, b, and c are prime numbers, all of which are greater than or equal to five.
Show that $a^2 + b^2 + c^2$ is not prime.

[Please fully explain your answer.]

Email solutions to kwonmi@uwplatt.edu by 4:00pm on Wednesday, October 26, 2022.

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/