

Puzzle 5: The End



by Jonah Ostroff

Did you know that words can become polynomials?

$$\left[\begin{array}{c} \blacktriangle \\ \alpha \end{array} \right] = 2 + 5x + 5x^2$$

$$\left[\begin{array}{c} \blacktriangle \\ \alpha \end{array} \right] \cdot \left[\begin{array}{c} \blacklozenge \\ \xi \end{array} \right] = 40 + 118x + 159x^2 + 90x^3 + 96x^4 + 115x^5 + 90x^6$$

You're almost done with the Secret Multivariable Puzzle Challenge.

Evaluate the following polynomial to claim your prize.

$$\begin{aligned} \left[\begin{array}{c} \omega \\ \circ \end{array} \right] &= \left[\begin{array}{c} \nu \\ \hexagon \end{array} \right] \cdot \left[\begin{array}{c} \mu \\ \octagon \end{array} \right] - \left[\begin{array}{c} o \\ \square \end{array} \right] \cdot \left[\begin{array}{c} \theta \\ \pentagon \end{array} \right] + \left[\begin{array}{c} \kappa \\ \square \end{array} \right] \\ &+ 3 \left[\begin{array}{c} l \\ \square \end{array} \right] \cdot \left[\begin{array}{c} \epsilon \\ \heptagon \end{array} \right] - 14 \left[\begin{array}{c} \beta \\ \square \end{array} \right] + \left[\begin{array}{c} \gamma \\ \square \end{array} \right] \\ &- \left[\begin{array}{c} \lambda \\ \pentagon \end{array} \right] \cdot \left[\begin{array}{c} \eta \\ \octagon \end{array} \right] - 13 \left[\begin{array}{c} \zeta \\ \hexagon \end{array} \right] - 2 \left[\begin{array}{c} \delta \\ \square \end{array} \right] \end{aligned}$$

The last thing you should know about the Secret Multivariable Puzzle Challenge is what to do when you're finished. Once you solve this puzzle, email your solution to ostroff@uw.edu. Use your UW email address. Please do not spam Jonah with random guesses. You'll know when you've found the solution. If it feels like you're just fishing for answers, you may be disqualified.

If you solved the puzzle as part of a team, list your teammates. Each of you will get the average of the number of points you would have earned if you had completed the challenge separately.

*The deadline to complete the Secret Multivariable Puzzle Challenge is 5:00 PM on Saturday, June 4th. Do **not** share answers to any of the puzzles with anyone before then. Remember, the more people who solve the Secret Multivariable Puzzle Challenge, the fewer points it's worth.*

