You have three colors and you would like to color every integer in such a way that $x$ and $y$ always get a different color whenever $x - y$ is a nonzero perfect square. Is such a coloring possible?

Please turn in your solutions to Dr. Patrick Bennett, by noon on Friday April 5 2019. Strive for clarity, neatness and legibility! Solutions may be turned into the Math Dept office in 3319 Everett Tower. Please include your name and email address. Electronic submissions may be sent to patrick.bennett@wmich.edu. If you are currently taking a math class, please include the instructor’s name and the course number.

http://www.wmich.edu/mathclub