

1135-E5-1114 **Sara L Malec*** (malec@hood.edu), 401 Rosemont Ave, Frederick, MD 21701. *Optimizing Idling: the Mathematics of Incremental Games.*

Incremental games, also called idle games, are simple video games where the player usually clicks a mouse repeatedly to earn some kind of currency. That currency can then be exchanged for other objects to help earn that currency more quickly. The gameplay is simple, but playing optimally involves a variety of interesting mathematical topics from modeling to calculus to statistics. We'll explore several areas of these games and the mathematics that underlie them, and see how they can be used as a teaching tool in a variety of mathematics classes. (Received September 19, 2017)