

# Homework 1-24-23

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MATH 2121 - Mathematical Modeling and Simulation

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Problem Set 1

(a) Explain why a "wave" arises that travels to the right. *Sol<sup>n</sup>* :

A wave starts among the  $n = 40$  agents because of the "initialization" step. Notice for  $n = 40$ ,  $\frac{n}{3} \approx 13.33 \implies \text{round}(13.33) = 13$ .

Then we do a logical operator, and in this case...  $n == \text{round}(1/3) \implies 40 = 13? \implies F \text{ or } 0$ . and then a double

Then for  $j = 1 : 80$  steps (we add pause so we can press enter 80 times),