Pay it Forward

In the movie *Pay it Forward,* a student, Trevor, comes up with an idea that he thought could change the world. He decides to do a good deed for three people and then each of the three people would do a good deed for three more people and so on. He believed that before long there would be good things happening to billions of people. At stage 1 of the process, Trevor completes three good deeds.

1. How does the number of good deeds grow from stage to stage? Represent in as many ways as you can (equations, graphs, diagrams/pictures, charts) Use additional paper if necessary.

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1. How many good deeds would be completed at stage 5? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How do you think this problem relates to our epidemiology problem?

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1. Challenge/Extension: Describe a function that would model the *Pay it Forward* process at *any* stage

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