**Zombie Apocalypse Project (3rd Quarter)**

Follow the instructions on the following worksheet. Grades will be determined according to the following rubric. **IF YOU KILL ALL THE ZOMBIES AS YOUR PLAN THE HIGHEST YOU CAN EARN IS A 50.**

\_\_\_\_\_\_\_\_\_\_\_ (25 points) All questions on your worksheet are completed.

\_\_\_\_\_\_\_\_\_\_\_ (15 points) The chosen amount of zombies cured each day actually does save the United States

\_\_\_\_\_\_\_\_\_\_\_ (25 points) All of your math is correct.

You included:

\_\_\_\_\_\_\_\_\_\_\_ (5 points) How many total zombies there are each day

\_\_\_\_\_\_\_\_\_\_\_ (5 points) How many new zombies are created each day

\_\_\_\_\_\_\_\_\_\_\_ (5 points) How many zombies have been created after the 5 day window

\_\_\_\_\_\_\_\_\_\_\_ (5 points) How long it would take for the entire country to be zombies

\_\_\_\_\_\_\_\_\_\_\_ (10 points) The math is clearly shown for the chosen amount of zombies cured each day saving the United States

\_\_\_\_\_\_\_\_\_\_\_ (5 points) Turned in with the rubric

This project is due \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Solanum Virus Loose in Roosevelt*

3/1/14 BREAKING NEWS: Strange, zombie like, behavior at Utah State University last week has been linked to a new virus, called *Solanum,* being researched in university labs. University officials are strongly advising that students remain in their homes and away from anyone who may be infected. Those who have been infected can be distinguished from others by a distinct red mark on their hands. Anyone with these red marks is infected.

Zombies must infect one other person per day in order to stay alive. It is expected that the virus will spread next to neighboring towns and cities.

*Zombies Present in Local High Schools*

3/5/14 BREAKING NEWS: Due to the high number of Union Students attending the University, the local Cougars have been quarantined inside the school. An infected student decides to enter the math building and the building is sealed off.

**TRACKING THE DISEASE**

Fill in the table depending on the number  
of students infected each day by Solanum in   
both Mrs. Bramall’s and Mr. Busenbark’s class.

|  |  |
| --- | --- |
| Days | # of People Infected |
| Day 1 | 2 |
| Day 2 |  |
| Day 3 |  |
| Day 4 |  |
| Day 5 |  |
| Day 6 |  |
| Day 7 |  |
| Day 8 |  |
| Day 9 |  |
| Day 10 |  |

Fill in the table depending on the number   
of students infected each day by Solanum in   
Mrs. Bramall’s.

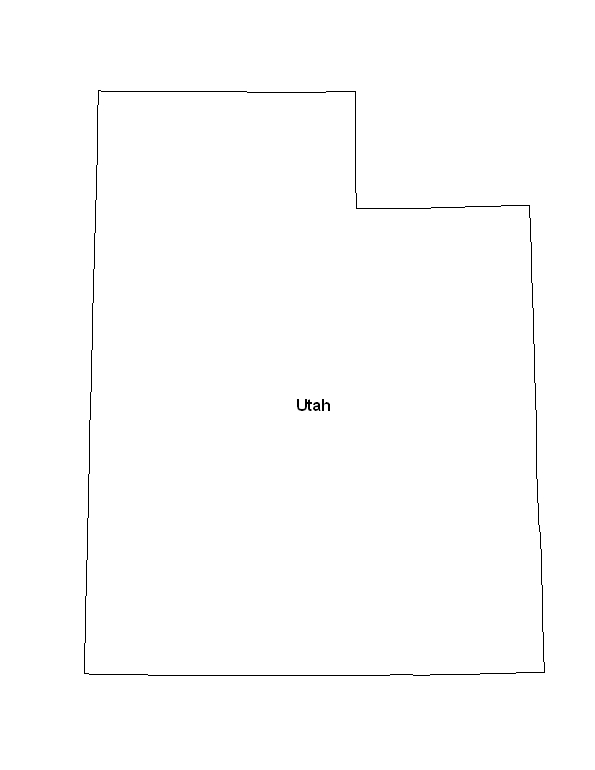
|  |  |
| --- | --- |
| Days | # of People Infected |
| Day 1 | 1 |
| Day 2 |  |
| Day 3 |  |
| Day 4 |  |
| Day 5 |  |
| Day 6 |  |
| Day 7 |  |
| Day 8 |  |
| Day 9 |  |
| Day 10 |  |

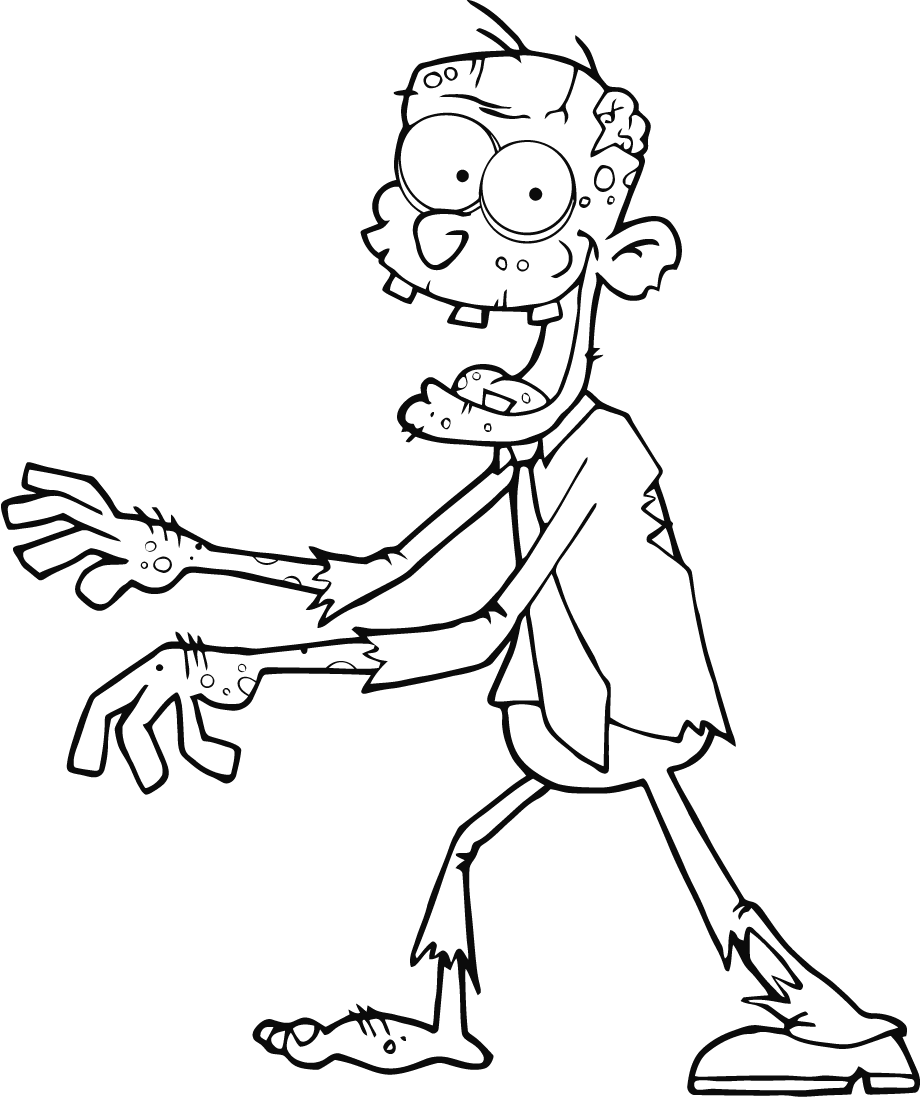
1. If Mrs. Bramall and Mr. Busenbark have 215 Secondary Math I students, how many days until they are all infected?
2. There are currently 5 infected students at Union today. Make a table and graph that will help us to figure out how many days until all of Union is infected (there are 880 students attending Union High School).

|  |  |
| --- | --- |
| Days | # of People Infected |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Write an equation that models the spread of Solanum if initially 8 people were thought to have contracted the disease.

1. In 2012 the local census stated that 6,310 people live in the city of Roosevelt. How long would it be until the entire city was infected?



1. Once the entire city of Roosevelt was infected (6,310 people) how soon after would the entire state of Utah be infected (2.855 Million people)?

*Zombies Take over Utah*

BREAKING NEWS: Officials have confirmed that the entire state of Utah (2.855 Million people) have been infected and are now zombies. These zombies have now spread to other states. There are 321,610,100 people in the United States. Scientists are desperately seeking a cure. A cure is finally discovered 5 days after the entire state of Utah zombies started infecting others. How many zombies must the cure save to prevent the entire United States from becoming zombies within 60 days after the cure is discovered?

Your work must include:

1. How many total zombies there are each day
2. How many new zombies are created each day
3. How many zombies have been created after the 5 day window
4. How long it would take for the entire country to be zombies
5. The chosen amount of zombies cured each day actually does save the United States and the math is clearly shown