ADVENTURE MATH

ZOMBIE OUTBREAK

6TH GRADE STATISTICS

ZOMBIE OUTBREAK

The Project:

Students pretend to be epidemiologists investigating a zombie outbreak occurring in the United States. Students apply their statistical skills to determine:

- Where the virus is originating
- Which patients are likely to become zombies
- Which symptoms are most common

Students practice:

-Creating dot plots and bar graphs
-Describing the distribution of data
-Determining mean and mode
-Evaluating the usefulness of the measure of central tendency based on the data's distribution

Printing:

- Print pg 3-8 for each student.
- Print a set of data for each student or each pair of students
- Print both maps for each student or each pair of students. (The maps will help students figure out which region each state belongs in.)

Tips:

- Start by explaining what epidemiologists do (get the kids to say the word aloud a few times!)
- Dramatically introduce the Virus X Outbreak
- Explain that the students are going to be epidemiologists investigating the outbreak
- Introduce the materials:
  - Data set with *actual* information about the infected patients.
  - Maps of the United States
  - An analysis packet
- Let students know that the CDC is counting on them for a thorough analysis completed quickly

Thanks so much for your purchase! I hope you and your students enjoy this activity. Don't forget to leave feedback to earn TPT credits! Please let me know how it goes and whether you have any suggestions for improvement.

VIRUS X OUTBREAK
EMERGENCY NOTIFICATION

Doctors have identified a dangerous virus that is spreading across America. They have named it Virus X. When people become infected with Virus X they come down with a variety of symptoms including coughs, fevers, and nausea. While some people infected with Virus X recover; others turn into zombies.

You are part of a medical research team that works for the Center for Disease Control (CDC.) Your team has been flown to an airport in Oregon to study a group of people with Virus X. These patients are quarantined in the airport to prevent the virus from spreading.

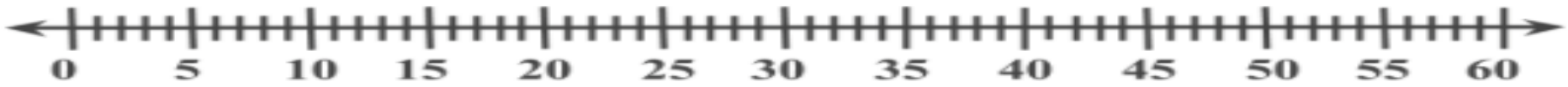
Analyze their information and help the CDC understand the virus. Figure out where the virus is coming from and why some people recover while others become zombies.

Research report prepared by: _____

Date: _____

1. **Who recovers and who becomes zombified?**

It's difficult to analyze the data in list form. Start your analysis by creating two dot plots on the number lines shown below. Make one dot plot for the ages of the people who became zombies and another dot plot for the ages of people who recovered. Be sure to title the dot plots.



Compare the dot plots. What do you notice? What conclusions can you draw?

_____

_____

_____

_____

Find the mean age of people who become zombies. Show your work:

Find the mean age of people who recovered. Show your work.

Summarize:
What do you notice about the means that you just found? Do both statistics give a good picture of the data or are they misleading? If you had to give an update to the press, would you share the information about the means? Explain.

_____

_____

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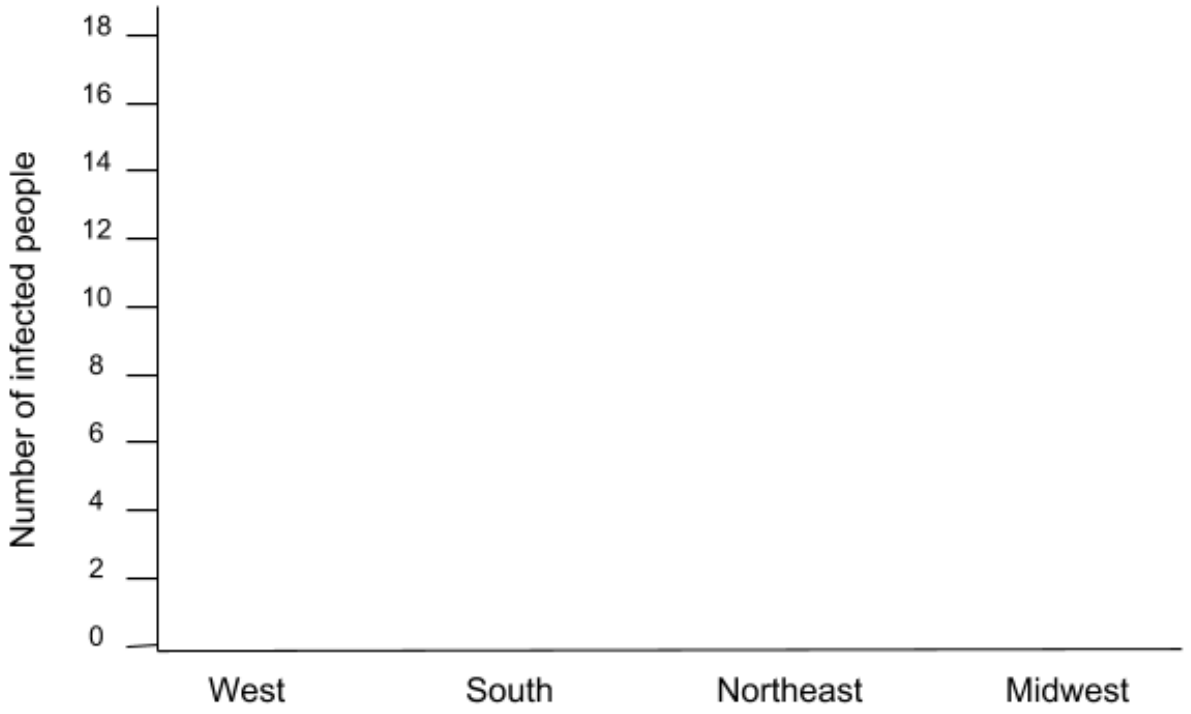
_____

_____

2. Where is VIRUS X originating?

Epidemiologists also want to figure out the source of the virus - they need to figure out where it's coming from. Use the data and the maps to create a bar graph showing where the infected people were traveling from.



What conclusions can you draw from the data? Use mathematical vocabulary.

_____

_____

_____

_____

3. How can doctors diagnose VIRUS X?

Determine the most common symptoms experienced by people who become zombies by creating a frequency table.

Symptom	# of people who became zombies

4. Press release

Write a short article that can be published on the CDC's website explaining everything you've discovered about Virus X.

_____

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5. A New Victim: Dana Watson

A new patient has come to you for assistance. Answer her questions using the data to support your answers.

Dana: "Hello, my name is Dana. I'm 31 years old, and I'm from South Carolina. I've had a variety of symptoms: headaches, a fever, and a rash. Do you think I will recover or become a zombie?

Doctor:

_____

_____

_____

Dana: "Since I'm probably going to _____, how many days do you think it will take?" Provide her with a detailed overview of what to expect: let her know the range, the mean, and the median of days it will take.

Doctor:

_____

_____

_____

_____

_____

Work Space: