



Analyzing the Data:

Understanding Suffering at Andersonville Teacher's Guide & Answer Key (p. 1)

1. What was the distance between the southwest corner and northeast corner of the prison?
 - a. The Pythagorean Theorem ($a^2 + b^2 = c^2$) is used to solve this problem.
 - b. The dimension of the stockade "rectangle" is 1,620 ft. x 779 ft. (a = length and b = width).
 - c. $1,620^2 + 779^2 = c^2$
 - d. $2,624,400 + 606,841 = c^2$
 - e. $3,231,241 = c^2$
 - f. $c^2 = 3,231,241$
 - g. $c = \sqrt{3,231,241}$
 - h. $c = 1797.57$
 - i. The distance between the two corners of the stockade was approximately 1798 feet.

2. If the total population of the prison increased by 10% on September 1st, what would the new population be? If on September 1st there was a prisoner uprising and the guards opened fire with rifles and cannons killing 25% of the prisoners and severely injuring 10% of those who were not immediately killed, then what would the new population be and how many prisoners would need medical attention? (Students will need to use the data from the daily returns, August 1864)
 - a. The total population of the prison on August 31st needs to be multiplied by 10%, giving 34,862 prisoners on September 1st.
 - b. 25% of the population needs to be subtracted from the number found in step "a." This will give the new population total. So $34,862$ (prisoners September 1st) $\times 0.25$ (the percent that was killed) = $8,716$ (total prisoners that were killed). $34,862$ (prisoners September 1st) - $8,716$ (prisoners that were killed) = $26,146$ (the new prison population).
 - c. 10% of the population needs to be subtracted from the number found in step "b." This will give you the number of prisoners that need medical attention. $26,146$ (the new/remaining prison population) $\times 0.10$ (the percent that were severely injured) = $2,615$ prisoners severely injured and need medical attention.