

Analyzing Numerical Data: Estimating Large Numbers

I.A Student Activity Sheet 1: Estimating Crowds



Estimating the number of people in a large crowd (for example, watching a parade or attending/marching in a political rally) is quite challenging and often leads to controversies. One method sometimes used is to focus on a small section of the crowd, such as a rectangular area.

1. Make a square measuring 5 feet by 5 feet, and have your friends stand inside it as if they are watching a band at a small club. Count the number of your friends that comfortably fit in the rectangle and find the ratio of this number to the rectangle's area. Explain in your own words what this ratio means.
2. Use this value to estimate the size of a crowd that is 10 feet deep on both sides of the street standing along a 1-mile section of a parade route.
3. One rule of thumb for estimating crowds is that each person occupies 2.5 square feet. Use this rule to estimate the size of the crowd watching a parade along the 1-mile section of the route in Question 2.