

Relay 1-1 The average of six distinct real numbers is 275. The average of the four least numbers is 200. The average of the four greatest numbers is 340. Compute the average of the middle two numbers.

Relay 1-2 Let $T = TNYWR$. A rectangle has area $\frac{T}{4} + \frac{1}{8}$ and a diagonal of length $\frac{T}{2}$. Compute the perimeter of the rectangle.

Relay 1-3 Let $T = TNYWR$, and let k be a real number such that the region above the x -axis satisfying the inequalities $|2x| + |y| \leq 2k$ and $|x| + |y| \geq k$ has area T . Compute k .