

# Warm-Up: A Familiar Concept

Prepared by Mark on May 9, 2025

## Problem 1:

Let  $v = [-5, -2, 0, 1, 4, 1000]$ . Find all  $x$  that minimize the following metric:

$$\sum_{\forall i} |v_i - x| = |v_1 - x| + |v_2 - x| + \dots + |v_6 - x|$$

## Problem 2:

Let  $v = [-5, -2, 0, 1, 4, 1000, 1001]$ . Find all  $x$  that minimize the metric in the previous problem.

## Problem 3:

What is this metric usually called?