

# Math 447: Quiz 2

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1. If  $x, y, z \in \mathbb{R}$  and  $x \leq z$ , show that  $x \leq y \leq z$  if and only if  $|x - y| + |y - z| = |x - z|$ .

2. Find all values of  $x$  satisfying the inequality  $4 < |x + 2| + |x - 1| < 5$ .