

Roping Them In



Objective:

To provide a visual representation of the relative size of numbers and their relationship to other numbers.

Directions:

Stretch a rope the length of the classroom. Place the original numbers on the end or the middle of the rope whichever is appropriate for the activity.

Give individual students a number card and have them find reasonable places to stand on the number line. Have them explain their reasoning. Have other students who are in their seats decide if they agree or disagree with the placement of the numbers and give their reasoning. Have students place numbers on their own number lines and explain their reasoning in written form. Use on assessments as well.

Large Numbers:

Begin with 0 on one end and 10,000 on the other end. Give out numbers that fall between. Then change the right end to 100,000 and have students who are already on the number line adjust where they are standing and justify their new position. Add more students with larger numbers. Finally, change the end number to 1,000,000 and have students adjust again and justify. Add larger numbers.

Fractions/Decimals/Percents:

Begin with 0 on one end and 1 on the other end. Give out fractions that fall between. Eventually add in decimals and percents so students see the relationship between all three forms of the numbers. Give some that are equal in value so students would be on the same point (stacked). Finally, change the end number to 2 and have students adjust again and justify. Add improper fractions and percents that are greater than 100%.

Integers:

Begin with 1000 and -1000 on the ends. Give out zero and a variety of positive and negative integers.

Variation: Add in positive and negative rational numbers

Adapted by Renee' Smith from Developing Number Sense on the Number Line; Mathematics Teaching in the Middle School, Jennifer M. Bay, 2001.