

# Number Lines Lesson 1

## Creating a Number Line Games

### Rules

Let's use dice to create your own number lines. Roll a dice to decide what the number line will look like using the following steps:

1. Roll the dice to determine how many scale marks will be on the number line. If you roll a 1, that will be wild, so you get to choose the number of scale marks.
2. Create the number line with that many scale marks.
3. Roll the dice to determine the number on the first scale mark. (Optional: You can choose to say that if the number is even, then it is negative. For instance, if you roll a 3, the first scale mark will be positive 3. If you roll a 2, the first scale mark will be negative 2.)
4. Add that number to the first scale mark.
5. Roll the dice to determine the increment used when moving from one scale mark to the next.
6. Add numbers under the rest of the scale marks increasing by the number that was rolled.

### Variations

- You could also have 1 be wild for the starting number or the increment, so you can be creative with larger numbers, fractions, or decimals.
- Create a number line with any number of scale marks. Draw a domino from a container and have the left number of dots be the number on the first scale mark and the right number of dots be the increment used when moving from one scale mark to the next. The blank sides can be wilds.
- Use a spinner from the APH Game Kit, the APH MathBuilders, Unit 8: Data Collection, Graphing, and Probability-Statistics Kit, or one that your teacher might have available. Spin to find the number of scale marks. Spin again to find the number on the first scale mark, and spin a third time to find the increment used when moving from one scale mark to the next. The same spinner can be used for each number or different spinners can be used for each of the numbers.

- Use a deck of cards with braille. This deck can include cards you make yourself, Math Drill cards from APH, or a deck of playing cards with suits. Black cards (clubs and spades) could represent positive numbers and red cards (hearts and diamonds) could represent negatives.

### Fun Fact

Have you ever heard of the term "in the red?" It's believed that this phrase originates from the practice of using red ink to signify a financial loss. Thus, a business that is "in the red," is a company that is losing money. Now, we write those numbers using a negative.