



Integer Number Line Activity



Objective: Students will be able to physically apply the rules for adding and subtracting integers.

Materials: Masking tape or sidewalk chalk

Procedure:

- I. Mark off a large number line that runs from -10 to +10. Leave about 18" between each number. This can be done in a large classroom, in a hallway, on a gym or cafeteria floor, or outside on a playground.
- II. Make up some simple integers subtraction and addition equations using sentence strips. Use integers between -10 and 10 and make sure the answers are between -10 and 10. Write the solved equation on the back of the strip.

Examples:

- a. $-6 - (+4) = z$ (For teacher demonstration.)
 - b. $-6 - (-4) = m$ (For teacher demonstration.)
 - c. $5 + (-5) = n$ and $5 - (-5) = n$
 - d. $4 - (+2) = y$ and $4 - (-2) = y$
 - e. $8 - 1 = b$ and $8 - (-1) = b$
 - f. $-7 - (+3) = x$ and $-7 - (-3) = x$
 - g. $3 - (+5) = a$ and $3 - (-5) = a$
- III. Explain to the students that they are going to practice adding and subtracting integers. In order to do this, they are going to use three simple rules.
 - a. They will stand at the integer that begins the equation and they will face towards numbers larger than that integer.
 - b. They will switch directions if the next symbol is a minus sign.
 - c. After they have finished switching directions, they will move forward the distance indicated by the subsequent integer.
 - IV. Demonstrate for the students by solving the following equation:
 $-6 - (+4) = z$ (put the sentence strip down in front of the students.)
 - a. Stand next to -6 facing in the direction of 0.
 - b. Switch directions once for the subtraction sign.
 - c. Move forward 4 units.
 - d. You will end up on the -10. Turn the sentence strip over to show the answer. Now put the strip for $-6 - (-4) = m$ down. Repeat the above process, but be sure to emphasize how you must change directions once for the subtraction sign, and then again for the negative sign. (You will end up on the -2.)
 - V. Use the remaining strips to have each student physically practice solving the equations.