6.NS It's Warmer in Miami

Alignments to Content Standards: 6.NS.C.5

Task

One morning the temperature is -28° in Anchorage, Alaska, and 65° in Miami, Florida. How many degrees warmer was it in Miami than in Anchorage on that morning?

IM Commentary

The purpose of this task is for students to apply their knowledge of integers in a real-world context. In 6th grade, students do not need to know that the problem can be represented by finding the difference of the temperatures. In 7th grade, students will be expected to formally connect the answer to this problem with the difference of the signed numbers:
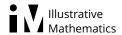
Because $65 - (-28) = 93$, we know it is 93 degrees warmer in Miami, Florida than it is in Anchorage, Alaska.
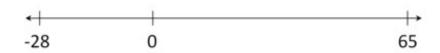
Solutions

Edit this solution
Solution: 1

The temperature in Anchorage is 28 below zero and in Miami it is 65 above zero, so the difference in temperatures is $28 + 65 = 93$ degrees.

Solution: 2

We can count from -28 up to 65. If Anchorage, Alaska was 28 degrees warmer than it is on this winter morning, the temperature would be zero degrees. If Anchorage, Alaska was 65 degrees warmer still, the temperature would be 65 degrees, the same temperature as Miami, Florida. In order for Anchorage, Alaska to be the same temperature as Miami, Florida, Anchorage would have to be $28 + 65 = 93$ degrees warmer than it is.

Thus, Miami, Florida is 93 degrees warmer than Anchorage, Alaska.