"How Many More?"

Objective:
By the end of the activity, the students will be able to:
- Add and subtract opposite signs (positive and negative) whole numbers with ease and speed.

Teacher Preparation:
- Copy the "Player Cards" on two different colors of paper. (Blue and red are being used in this example.)
- Provide copies of the "How Many More" activity sheet.

Introduction
1. Show a picture of a basketball court with each team having 5 on-court players. Ask the students which team has the most on-court players and by how many.
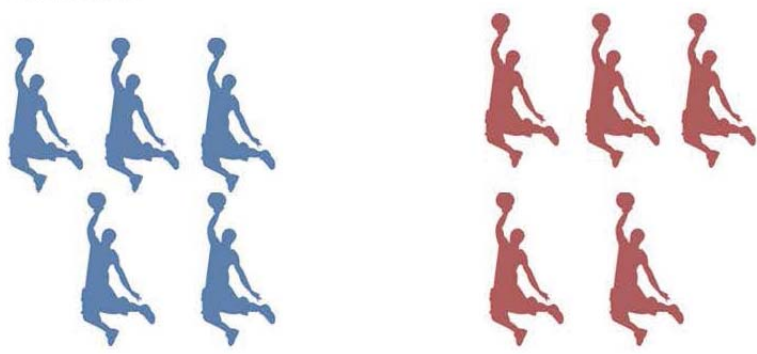
South Carolina College- and Career-Ready Standards for Mathematics:
7.NS.1 Extend prior knowledge of operations with positive rational numbers to add and to subtract all rational numbers and represent the sum or difference on a number line.

2. Explain that during the game a player who was subbed in from the bench did a poor job of communicating to their teammates who needed to be subbed out. Show a picture of a basketball court with the blue team having 5 on-court players and the red team having 6 on-court players. Ask the students which team has the most on-court players and by how many.
3. Show the same picture but reversed. The blue team will now have 6 on-court players and the red team will now have 5 on-court players. Ask the students which team has the most on-court players and by how many.

Now show each pictorial representation with its matching mathematical equation.
Picture 1:

= No team has more players on the court than the other

$$5 + (-5) = 0$$

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Picture 2:

= The red team has one more player on the court than the blue team

5   +   (-6)   = -1

Picture 3:

= The blue team has one more player on the court than the black team

6   +   (-5)   = 1

Activity:
Tell the students how many of each number of cards to pull from their stack. Have them answer the two questions in their handout and write the correct mathematical equation.

Make sure the students fill-in the player colors you chose, and identify which color will represent the negative number.

Sample "How Many More" Activity Sheet				
Positive Color: <u>Blue</u>			*Negative Color: <u>Red</u>*	
	<u>Blue</u> Players	<u>Red</u> Players	Which team has the most number of players?	By how many more players does that team have?	Mathematical Equation
1.	6	10	Red	4	6 + (-10) = -4
2.	14	3	Blue	11	14 + (-3) = 11 or 14 – 3 = 11

Extensions:

- The teacher can control how challenging to make the numbers depending on their students' ability.
- Once the students have mastered the activity, the students can move to two different colored dice. In groups, the students can compete and award points based on coming up with the answer the quickest. This game could easily be done during breaks in instruction to strengthen students' skills.

"How Many More" Activity Sheet

Positive Color: _____   Negative Color: _____

	_____ Players	_____ Players	Which team has the most number of players?	By how many more players does that team have?	Mathematical Equation
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

"Player Cards" Activity Sheet