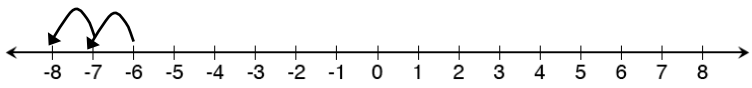
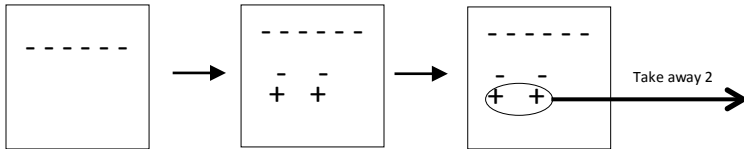
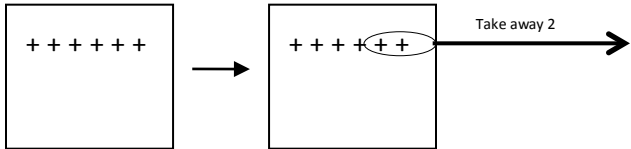
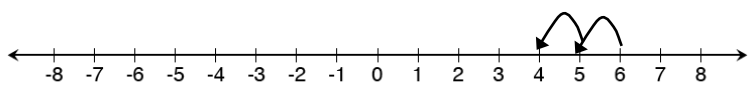


Choose all the methods that correctly demonstrate how to find this difference:

$$-6 - 2$$

- A. 
- B. $-6 - 2 = 6 + 2$
- C. 
- D. $-6 - 2 = -6 + (-2)$
- E. 
- F. 

Scoring

2 points: If selected only A, C, and D as equivalent responses.

1 point: If selected any two of A, C, and D as equivalent responses OR D only as equivalent response.

0 points: Any other combination.

Key and Distractor Analysis

A. Key. Students correctly used number line.

B. Students incorrectly changed the signs of both numbers.

C. Key. Students correctly added zero pairs to remove two positives.

D. Key. Student correctly understood subtraction as adding the additive inverse.

E. Student misrepresented -6 with six positive counters.

F. Student incorrectly identified -6 as 6 on the number line.

The Number System

7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
 - a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*
 - b. Understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
 - c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.