LESSON MAKER PRO

Number Line Moves

Add and subtract rational numbers with direction.

GRADE 7 · 7.NS.A.1

CCSS.Math.Content.7.NS.A.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."

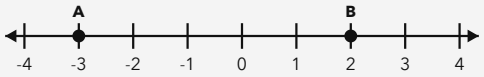
NAME _____ DATE _____

MOVE WITH SIGNED NUMBERS

To add rational numbers, move right for a positive number and left for a negative number. To subtract a number, add its opposite, then use the same direction rule.

WORKED EXAMPLE

Use the number line. Find A + B.

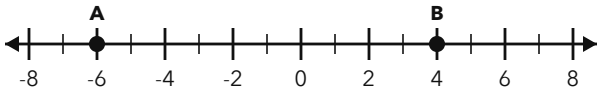


1. A is at -3.
2. B is at 2.
3. -3 + 2 = -1.

Answer: -1

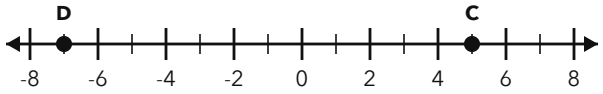
PRACTICE 6 problems

1 Use the number line. Find A + B.



ANSWER _____

2 Use the number line. Find C + D.



ANSWER _____

3 Find -9 + 14.

ANSWER _____

4 Find 7/8 + (-3/4).

ANSWER _____

5 Find -2 1/3 - 1 1/6.

ANSWER _____

6 Find -5/6 - (-1/4).

ANSWER _____

APPLY IT Show your work

1 In a gaming tournament, Jordan earns 4 3/4 points in one round after losing 7 1/2 points in an earlier round. What is Jordan's net change in points?

WORK SPACE

ANSWER _____

2 A livestream is 1 1/4 minutes ahead of schedule. A technical delay lasts 2 1/3 minutes. How far ahead of or behind schedule is the livestream after the delay?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student says that -4 1/2 - (-2 3/4) = -7 1/4 because subtraction always makes a number smaller. Is the student correct? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Number Line Moves

GRADE 7 · 7.NS.A.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the number line. Find A + B.	**-2**
2	Use the number line. Find C + D.	**-2**
3	Find -9 + 14.	**5**
4	Find 7/8 + (-3/4).	**1/8**
5	Find -2 1/3 - 1 1/6.	**-3 1/2**
6	Find -5/6 - (-1/4).	**-7/12**

PART 2 · APPLY IT

1. **-2 3/4 points** Add the point changes: -7 1/2 + 4 3/4 = -2 3/4. Jordan's score decreases by 2 3/4 points overall.
2. **1 1/12 minutes behind schedule** Subtract the delay from the amount ahead: 1 1/4 - 2 1/3 = -1 1/12. The negative result means the livestream is behind schedule.

CHALLENGE

No. Subtracting -2 3/4 is the same as adding 2 3/4, so -4 1/2 + 2 3/4 = -1 3/4.

Accept equivalent fraction forms, such as -7/2 for -3 1/2. For the challenge, accept any explanation that states subtracting a negative is equivalent to adding its opposite.