LESSON MAKER PRO

Moves That Add

Add rational numbers by moving on a number line.

GRADE 7 · 7.NOS.A.1.b

7.NOS.A.1.b "Model the addition of rational numbers as movement along a number line, where the direction and distance depend on the sign and magnitude of the addend. Show that a number and its opposite have a sum of 0 (are additive inverses)."

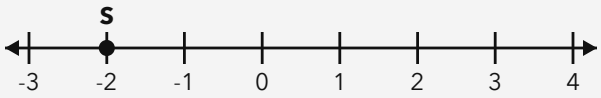
NAME _____ DATE _____

THE BIG IDEA

Start at the first number. For a positive addend, move right. For a negative addend, move left. Move the addend's distance from 0. A number and its opposite add to 0.

WORKED EXAMPLE

Start at S. Add 5. Where do you land?



1. Start at -2.
2. Move 5 units right.
3. Land at 3.

Answer: -2 + 5 = 3

PRACTICE 4 problems

1 Find 4 + (-7).

ANSWER _____

2 Find -6 + 6. Why does your answer make sense?

ANSWER _____

_____

3 Find -1/2 + (-3/4).

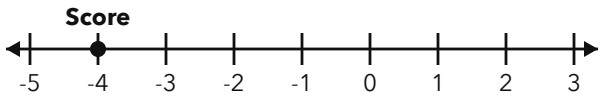
ANSWER _____

4 Find 2.5 + (-1.75).

ANSWER _____

APPLY IT Show your work

1 In a video game, the dot shows your score. You gain 6 points. What is your new score? Write an addition equation.



ANSWER _____

2 In a parking garage, the dot marks your starting floor. You ride down 8 floors. What floor do you reach? Write an addition equation.



ANSWER _____

CHALLENGE One step up

Start at -3/4. Add 1/2, then make one more move to reach 0. What is the last addend? Show both addition equations.

WORK SPACE AND ANSWER

ANSWER KEY

Moves That Add

GRADE 7 · 7.NOS.A.1.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 4 + (-7).	**-3**
2	Find -6 + 6. Why does your answer make sense?	**0; -6 and 6 are opposites.**
3	Find -1/2 + (-3/4).	**-5/4**
4	Find 2.5 + (-1.75).	**0.75**

PART 2 · APPLY IT

1. **-4 + 6 = 2; new score: 2** Move 6 units right from -4 to reach 2.
2. **7 + (-8) = -1; floor: -1** Moving down 8 floors means adding -8. Move 8 units left from 7 to reach -1.

CHALLENGE

Last addend: 1/4. -3/4 + 1/2 = -1/4; -1/4 + 1/4 = 0.

Accept -1 1/4 for -5/4. In the challenge, the last addend must be the opposite of -1/4.