LESSON MAKER PRO

Signed Moves

Model and calculate integer products and quotients

GRADE 7 · 7.N.2.2

7.N.2.2 "Illustrate multiplication and division of integers using a variety of representations."

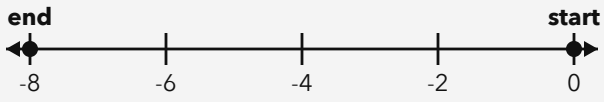
NAME _____ DATE _____

SIGNS AND STEPS

Multiplying by a positive integer repeats a change. On a number line, a negative change moves left. For multiplication and division, matching signs give a positive result, while different signs give a negative result.

WORKED EXAMPLE

Use the number line to find (-2) * 4.



1. Start at 0.
2. Make 4 jumps of -2: -2, -4, -6, -8.
3. The endpoint is -8.

Answer: -8

PRACTICE 4 problems

1 Find (-5) * 6.

ANSWER _____

2 Find (-7) * (-3).

ANSWER _____

3 Find 35 / (-7).

ANSWER _____

4 Find (-42) / (-6).

ANSWER _____

APPLY IT Show your work

1 A gamer loses the same number of points in each match. Use the table to find the total change in points.

GAME SCORE

Matches	Points per match
5	-9

ANSWER _____

2 A channel loses 56 followers over 8 days at a steady rate. What is its change in followers each day?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game score changes by -6 points each round. After x rounds, the total change is -72 points. Write a multiplication equation and a division equation, then find x.

WORK SPACE AND ANSWER

ANSWER KEY

Signed Moves

GRADE 7 · 7.N.2.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find (-5) * 6.	**-30**
2	Find (-7) * (-3).	**21**
3	Find 35 / (-7).	**-5**
4	Find (-42) / (-6).	**7**

PART 2 · APPLY IT

1. **-45 points** Multiply 5 * (-9) to get a total change of -45 points.
2. **-7 followers per day** Divide the total change by the number of days: (-56) / 8 = -7.

CHALLENGE

(-6) * x = -72; (-72) / (-6) = 12; x = 12 rounds

Accept equivalent equations in the challenge. In the word problems, require the negative sign because each quantity is a loss.