.2.5 What can I do with integers?

lition, Subtraction, Multiplication, and Division of Integers

ıis lesson, you will have an opportunity to practice adding, subtracting, multiplying, dividing integers as you play a game against a partner. As you play, consider these stions:

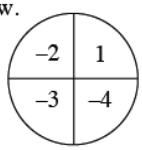
Which operation with these integers will move us farthest?

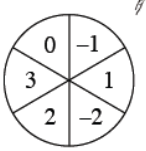
Which operation with these integers will move us in the direction we want?

Will any operation with these integers allow us to win?

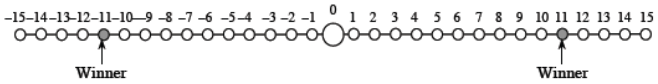
3. TUG-O-WAR

Obtain a Lesson 3.2.5 Resource Page from your teacher and play Tug-o-War against your partner. Keep track of any strategies that you use or discover as you are playing. Play until your teacher calls time. The rules are printed below.





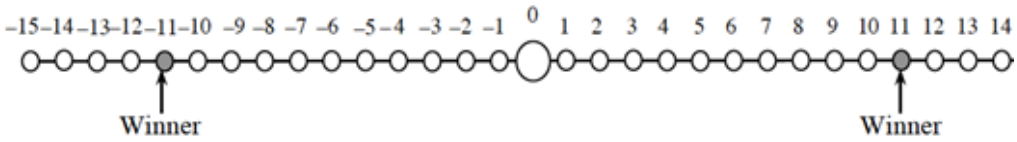
How to Play



1. Place your marker at zero.
2. Spin both spinners. You may choose to add, subtract, multiply, or divide the two numbers. The result of your calculation determines how many steps you will take and in which direction. For example, if you spin a −2 and a −1, and you choose to add them to get −2 + (−1) = −3, you would move three spaces to the left. Note that you always need to land on an integer space (one of the circles), so that may limit your choices.
3. For each move, record on your paper your starting position, the expression and the result for your chosen move, and your ending position.
4. If your move causes your marker to go off the board on any play, you lose your turn.

Starting Position	Expression for Move	Result of expression	Ending Position

Name



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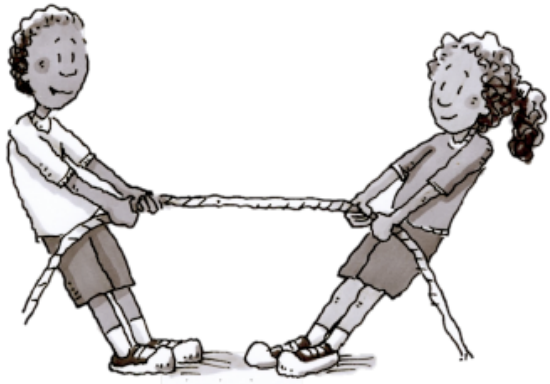
3. For each move, record on your paper your starting position, the expression and the result for your chosen move, *and* your ending position.

4. If your move causes your marker to go off the board on any play, you lose your turn.

5. The game ends when one player lands exactly on a "Winner" space.

STARTING POSITION	EXPRESSION FOR MOVE	RESULT OF EXPRESSION	ENDING POSITION
0	$-4-3$	-7	-7
-7	$-2 \cdot 2$	-4	-11
			I won!

Play Integer Tug-o-War against your partner. Keep track of any strategies that you use or discover as you are playing. Play until your teacher calls time.



Cynthia, Devin, Gavin, and Mark are playing the Tug-O-War game.

A) Cynthia begins her turn with her marker at 15. She spins a 1 and a –3.

She thinks that she might be able to get to the winner space at 11 with this spin. Is she correct? Explain why or why not.

She can win. -3 - 1 = -3 + -1 = -4. 15 = -4 = 11

B) Devin takes his turn. His marker is on the 1, and he spins a 4 and a -3 .

Is it possible for Devin to get to one of the winner spaces (at 11 and -11) with these numbers? Explain your answer.

He can win. 4 • -3 = -12, and 1 + -12 = -11