



LESSON 2

Solve Equations

What You Need

- Recording Sheet
 - number cube (1 – 6)
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What You Do

- 1 Choose an equation frame.
 - Roll the number cube to fill in the unknown values.
 - Record the equation on the **Recording Sheet**.
 - Solve the equation for the value of x .
 - If there is no solution or infinitely many solutions, replace a value in the equation so there is a single value for x .
- 2 Check each other's work.
 - If correct, record the value of x on the **Recording Sheet**.
 - If incorrect, fix the error and record the correct value.
 - Round the value to the nearest tenth if necessary.
- 3 Repeat for five rounds. Sum the values of x . The player with the greatest total wins.



Check Understanding

Solve the equation $\frac{2x + 1}{4} = \frac{4x - 1}{5}$. Explain your thinking to your partner.



Go Further

Choose a completed equation from the Recording Sheet. Multiply both sides of the equation by 4 and solve the new equation. Then multiply both sides of the original equation by $-\frac{2}{3}$ and solve. Compare your answers to the three equations. Use vocabulary from the Lesson to describe the relationship between the equations.



Solve Equations

RECORDING SHEET

Equation Frames	
$\square x + \square = \square x + \square$	$0.5(\square x + 6) = \square(x + \square)$
$\frac{5 + \square x}{\square} = \square + \square x$	$\square x + \square - x = -(\square - \square x)$
$\frac{3(x + \square)}{\square} = \square(x - \square)$	$3(\square x - 5) = \square(x - \square)$
$\square x - \square = \square x - \square$	$\frac{1}{\square}(x + \square) = \square x - \square$

	Player 1		Player 2	
	Equation	Value of x	Equation	Value of x
Round 1				
Round 2				
Round 3				
Round 4				
Round 5				
Total				