

MAT.08.SR.1.000EE.D.204

Sample Item ID:	MAT.08.SR.1.000EE.D.204
Grade:	08
Claim(s):	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 D: Analyze and solve linear equations and pairs of simultaneous linear equations.
Content Domain:	Equations and Expressions
Standard(s):	8.EE.7
Practice(s):	1, 7, 8
DOK:	2
Item Type:	SR
Score Points:	1
Difficulty:	M
Key:	One Solution, No Solution, One Solution
Stimulus/Source:	
Target-Specific Attributes (e.g., accessibility issues):	
Notes:	Calculator tool should be turned on.

For each linear equation in this table, indicate whether the equation has no solution, one solution, or infinitely many solutions.

Equation	No Solution	One Solution	Infinitely Many Solutions
$7x + 21 = 21$			
$12x + 15 = 12x - 15$			
$-5x - 25 = 5x + 25$			

Key and Distractor Analysis:

1. One solution. This is designed to be an easy equation to solve to help students enter the problem. Answering this question correctly demonstrates minimal understanding.
2. No solution. Students may think there is no difference between adding 15 on the left-hand side and subtracting 15 on the right-hand side.
3. One solution. Students may think there are infinitely many solutions because the left-hand side is the negative of the right-hand side.

This item is worth 1 point because all of the concepts used to answer it correctly are linked.