Systems of Equations **SUBJECT**: Algebra
Bingo

OBJECTIVES:

M052C.02	To solve systems of linear functions by the elimination method
M066A.03	To solve systems of linear equations in two variables by several methods

MATERIALS NEEDED:
55 index cards
Bingo card handout for each student

INSTRUCTIONS TO THE TEACHER FOR <u>MAKING</u> ACTIVITY:
1. Write the sets of equations on the index cards and label each card with the given letters.

2. Make a copy of the bingo card handout for each student.

INSTRUCTIONS TO THE TEACHER FOR <u>CONDUCTING</u> ACTIVITY:
1. Give each student the handout.

2. Have students choose 25 of the given solutions and write them in the bingo squares. These should be written in ink before the index cards are given out.

3. Give each student one index card.

4. Tell students what results they need to win. This can be either covering five squares horizontally, vertically, diagonally, covering the entire card or covering the four corners.

DIRECTIONS TO THE STUDENT:
1. Solve the systems of equations on the index card.

2. If the solution is on the bingo card, write the letter of the card in the bingo square. Return the card and choose another card.

3. If the solution is not on the bingo card, return the card and choose another card.

4. This activity continues until there is a winner.

VARIATION:
The students may work in groups.

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*Note: Teacher may want to use fewer equations or make up different equations.

Equation Cards

Card A $x + y = 13$ $y = 2x + 4$	**Card B** $x + y = 14$ $y = x + 4$	**Card C** $y = x - 7$ $x + y = 15$
Card D $y = x - 10$ $x + 2y = 4$	**Card E** $y = 2x$ $3y + 2x = 48$	**Card F** $x = y + 8$ $4x + 2y = 2$
Card G $m = p + 7$ $3m - 5p = 25$	**Card H** $m = 2n - 12$ $5m + 6n = 100$	**Card I** $10r - 7t = 0$ $t = 24 - 2r$
Card J $q = -3r$ $5r + q = 14$	**Card K** $x - y = 2$ $x + y = 14$	**Card L** $x - y = 2$ $x + y = 16$
Card M $x - y = -24$ $x + 8y = 3$	**Card N** $x - 2y = 8$ $2x + y = {}^\bullet9$	**Card O** $2a + 5b = -4$ $-3a + b = -11$
Card P $2a - b = 3$ $-a + b = 4$	**Card Q** $3b - 2a = 11$ $a + b = 17$	**Card R** $4a + b = -1$ $6a + 2b = -12$
Card S $3a - 2b = -25$ $a + 2b = 5$	**Card T** $x + y = 1$ $y - x = 11$	**Card U** $2x - 3y = 0$ $3x - 4y = 3$
Card V $x - y = 30$ $3x + y = 6$	**Card W** $2x + y = 14$ $x - y = 1$	**Card X** $x - 4y = -1$ $x + 3y = -36$

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Equation Cards

Card Y $x + y = 15$ $x - y = 5$	**Card Z** $x + y = 16$ $x - y = 8$	**Card AA** $\frac{2}{3}x + \frac{1}{4}y = 7$ $\frac{2}{3}x - \frac{3}{4}y = 3$
Card BB $\frac{3}{5}x - \frac{1}{2}y = 19$ $-\frac{2}{5}x - \frac{1}{2}y = -16$	**Card CC** $0.2x + 0.3y = 18$ $0.4x - 0.3y = 0$	**Card DD** $1.2x + 2.4y = 18$ $x + y = 10$
Card EE $3x - 2y = 4$ $2x - y = 5$	**Card FF** $3x + 2y = 11$ $4x + 5y = 3$	**Card GG** $2x + y = 6$ $x + y = 0$
Card HH $x + y = 6$ $2x + y = 1$	**Card II** $3x - 7y = -1$ $2x + y = 5$	**Card JJ** $7x + 2y = 24$ $x + 2y = 0$
Card KK $3x - 4y = 1$ $4x - 5y = 3$	**Card LL** $3x - 2y = 13$ $2x + 3y = 13$	**Card MM** $x + 5y = -2$ $x - 2y = 12$
Card NN $x - 2y = 9$ $x + 3y = 4$	**Card OO** $4x + 2y = 2$ $5x + 2y = -1$	**Card PP** $-x - y = 4$ $2x - y = 13$
Card QQ $-x - y = 1$ $2x + y = 3$	**Card RR** $2x + 5y = -2$ $-x - 5y = -4$	**Card SS** $7x - 8y = 29$ $4x + 8y = 4$
Card TT $x + y = -9$ $x - y = -11$	**Card UU** $2x + 6y = 4$ $x - 6y = 29$	**Card VV** $4x - 5y = 32$ $8x + 5y = 4$

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Equation Cards

Card WW $5x - 3y = 18$ $3x + 3y = 30$	**Card XX** $4x - 2y = 38$ $x + 2y = 7$	**Card YY** $2x + 3y = 10$ $x - 3y = 14$
Card ZZ $4x - y = 17$ $x + y = 18$	**Card AAA** $x + y = -12$ $3x - y = -8$	**Card BBB** $x + y = -4$ $2x - y = 16$
Card CCC $x + y = 4$ $x - y = 10$		

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ANSWERS FOR CARDS

Card A - (3, 10)	Card AA - (9, 4)	Card AAA - (-5, -7)
Card B - (5, 9)	Card BB - (35, 4)	Card BBB - (4, -8)
Card C - (11, 4)	Card CC - (30, 40)	Card CCC - (7, -3)
Card D - (8, -2)	Card DD - (5, 5)	
Card E - (6, 12)	Card EE - (6, 7)	
Card F - (3, -5)	Card FF - (7, -5)	
Card G - (5, -2)	Card GG - (6, -6)	
Card H - (10, 8)	Card HH - (-5, 11)	
Card I - (7, 10)	Card II - (2, 1)	
Card J - (-21, 7)	Card JJ - (4, -2)	
Card K - (8, 6)	Card KK - (7, 5)	
Card L - (9, 7)	Card LL - (5, 1)	
Card M - (-21, 3)	Card MM - (8, -2)	
Card N - (-2, -5)	Card NN - (7, -1)	
Card O - (3, -2)	Card OO - (-3, 7)	
Card P - (7, 11)	Card PP - (3, -7)	
Card Q - (8, 9)	Card QQ - (4, -5)	
Card R - (5, -21)	Card RR - (-6, 2)	
Card S - (-5, 5)	Card SS - (3, -1)	
Card T - (-5, 6)	Card TT - (-10, 1)	
Card U - (9, 6)	Card UU - (11, -3)	
Card V - (9, -21)	Card VV - (3, -4)	
Card W - (5, 4)	Card WW - (6, 4)	
Card X - (-21, -5)	Card XX - (9, -1)	
Card Y - (10, 5)	Card YY - (8, -2)	
Card Z - (12, 4)	Card ZZ - (7, 11)	

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BINGO CARD

Answers to go in Bingo squares.

(3, 10)	(9, 7)	(5, 4)	(7, -3)	(3, -7)	(30, 40)
(7, 10)	(-5, 6)	(10, 8)	(3, -1)	(7, -5)	(3, -4)
(8, 9)	(6, 12)	(7, 11)	(2, 1)	(8, -2)	(5, 1)
(5, 9)	(-21, 3)	(-21, -5)	(4, -8)	(-3, 7)	(35, 4)
(-21, 7)	(9, 6)	(10, 5)	(-6, 2)	(6, 7)	(9, 4)
(5, -21)	(3, -5)	(11, -3)	(-5, 11)	(9, -1)	
(11, 4)	(-2, -5)	(7, 5)	(-5, -7)	(7, -1)	
(8, 6)	(9, -21)	(12, 4)	(4, -5)	(5, 5)	
(-5, 5)	(5, -2)	(-10, 1)	(6, -6)	(6, 4)	
(8, -2)	(3, -2)	(4, -2)	(7, 11)	(8, -2)	

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