TUESDAY, APRIL 2, 2019

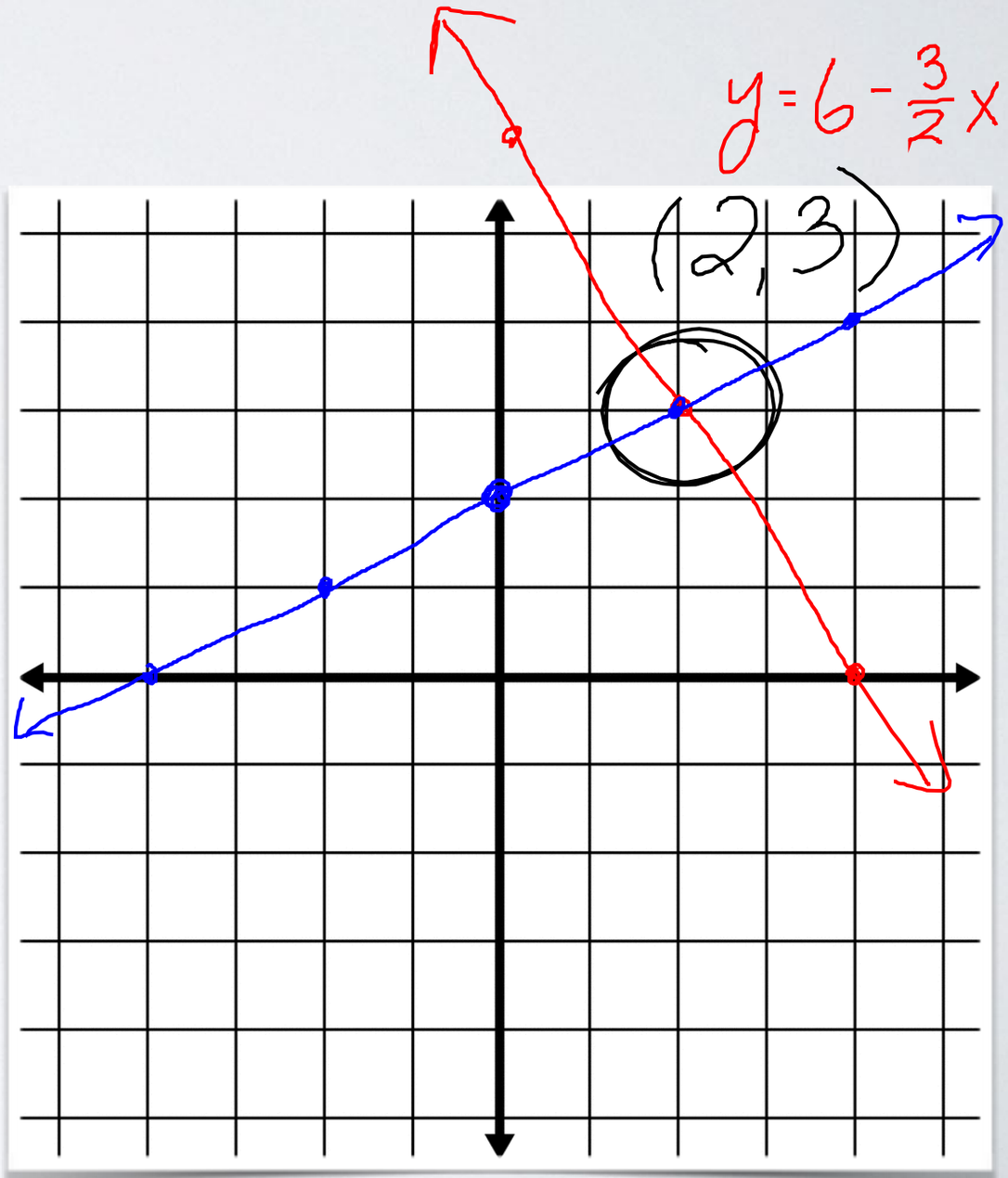
Warm Up

- Solve the given system by graphing.

$3x + 2y = 12$

$y = {}^1/_2x + 2$

$3x + 2y = 12$
$-3x \quad -3x$
$\frac{2y}{2} = \frac{12 - 3x}{2}$
$y = 6 - \frac{3}{2}x$



- Elimination Method

ELIMINATION

Type 1

A. $6x - y = 14$

$+ \quad 2x + y = 12$

$8x = 26$

$\frac{8x}{8} = \frac{26}{8}$

$x = 3.25$

$2(3.25) + y = 12$

$6.5 + y = 12$

$-6.5 \quad -6.5$

$y = 5.5$

$(3.25, 5.5)$

B. $7x - 1y = -10$

$-7x + 5y = -6$

$4y = -16$

$\frac{4y}{4} = \frac{-16}{4}$

$y = -4$

$7x - (-4) = -10$

$7x + 4 = -10$

$-4 \quad -4$

$7x = -14$

$\frac{7x}{7} = \frac{-14}{7}$

$x = -2$

$(-2, -4)$

Content Objective: I will solve systems of linear equations (SOLE) by the elimination method.
Language Objective: I will clearly write the steps needed to solve SOLE by the elimination method.
Social Objective: I will work with my peers to stay on task and solve SOLE using the elimination method.

ELIMINATION

Type 2

A. $3x + 2y = -13$

$3x + 4y = 1$

$-1(3x + 2y = -13)$ → $-3x - 2y = 13$

$+\ 3x + 4y = 1$

$0 \quad 2y = 14$

$\frac{2y}{2} = \frac{14}{2}$

$y = 7$

$3x + 4(7) = 1$

$3x + 28 = 1$

$-28 \quad -28$

$\frac{3x}{3} = \frac{-27}{3}$

$x = -9$

$(-9, 7)$

B. $3x + 7y = 14$

$2x + 7y = 21$

$-1(2x + 7y = 21)$ → $-2x - 7y = -21$

$+\ 3x + 7y = 14$

$x = -7$

$3(-7) + 7y = 14$

$-21 + 7y = 14$

$+21 \quad +21$

$\frac{7y}{7} = \frac{35}{7}$

$y = 5$

$(-7, 5)$

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BRAIN BREAK

ELIMINATION

Type 3

A. $8x + 14y = 4$

$2(-6x - 7y = -10)$

$8(4) + 14y = 4$

$32 + 14y = 4$

$-32 \quad -32$

$\frac{14y}{14} = \frac{-28}{14}$

$y = -2$

B. $8x + 14y = 4$

$-12x - 14y = 20$ (+)

$\frac{-4x}{-4} = \frac{-16}{-4}$

$x = 4$

$(4, -2)$

$-4x + 9y = 9$

$(x - 3y = -6)3$

$9 - 3y = -6$

$-9 \quad -9$

$\frac{-3y}{-3} = \frac{-15}{-3}$

$y = 5$

$-4x + 9y = 9$

$3x - 9y = -18$

$\frac{-1x}{-1} = \frac{-9}{-1}$

$x = 9$

$(9, 5)$

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ELIMINATION

Type 4

A. $3x - 2y = 2$ (5)

$5x - 5y = 10$ (−2)

$15x - 10y = 10$

$-10x + 10y = -20$

$\pm$

$\frac{5x}{5} = \frac{-10}{5}$

$x = -2$

$3(-2) - 2y = 2$

$-6 - 2y = 2$

$+6 \quad +6$

$\frac{-2y}{-2} = \frac{8}{-2}$

$y = -4$

$(-2, -4)$

B. $-4x - 2y = 14$

$-10x + 7y = -25$

$(-1, -5)$

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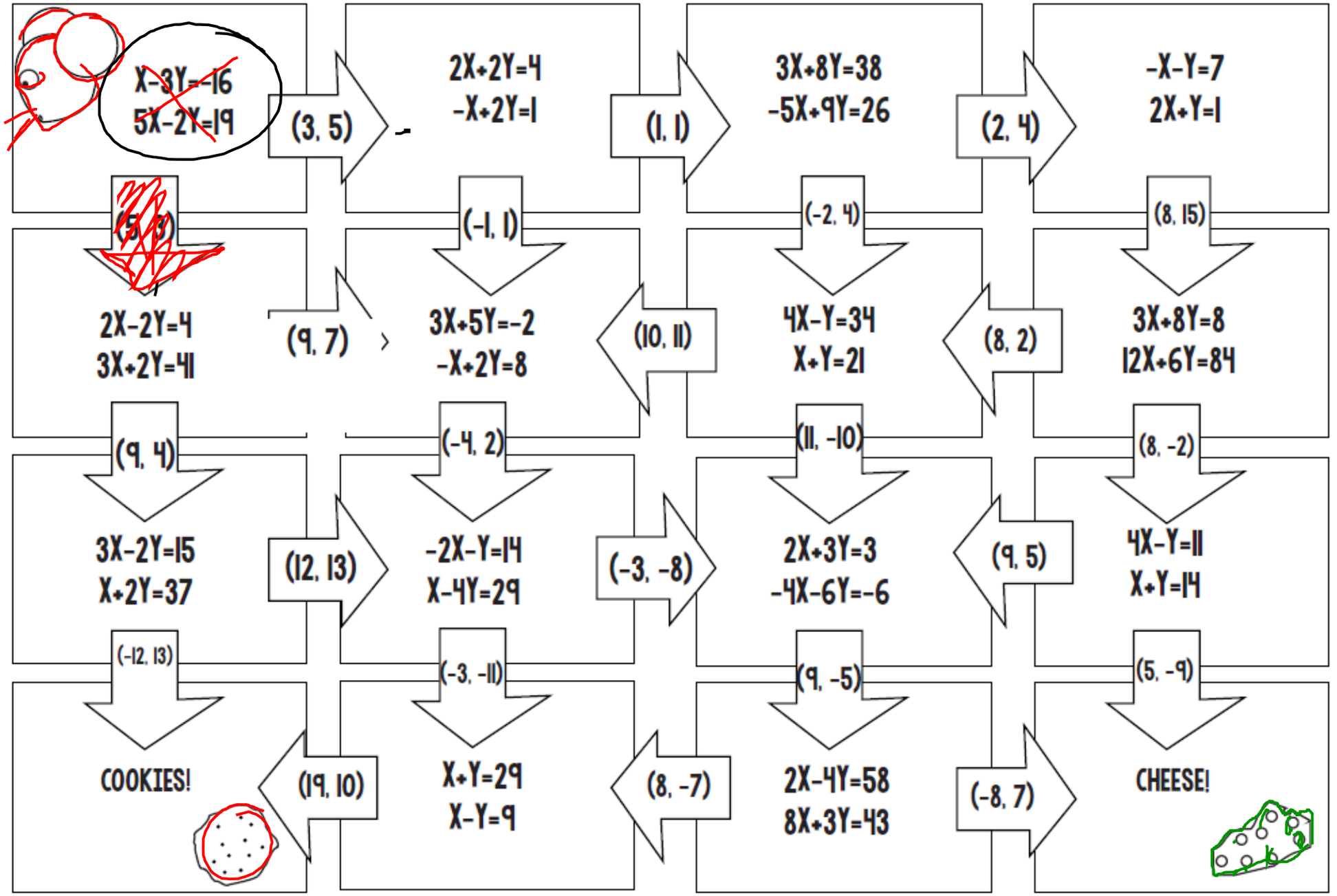
BRAIN BREAK

ELIMINATION PRACTICE

NAME:

DIRECTIONS: HELP THE MOUSE FIND HIS FAVORITE FOOD! START AT THE START BOX. SOLVE EACH SYSTEM OF EQUATIONS. FOLLOW THE ARROW WITH THE CORRECT ANSWER. COLOR IN YOUR PATH AS YOU GO.



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