Algebra 2 - 2018

Name Key ID: 1

Date _____ Hour____

Linear Systems Practice Quiz #1

Solve each system by substitution or elimination. You must use each method AT LEAST twice. To receive credit, you must show your work.

S 1) $y = 4x - 25$
$-13x + 10y = -34$

$-13x + 10(4x - 25) = -34$

$-13x + 40x - 250 = -34$

$27x = 216$

$x = 8$

$y = 4(8) - 25$

$y = 32 - 25$

$y = 7$

(8, 7)

S 2) $-7x + 5y = -22$
$x - 3y = 10$

$x = 3y + 10$

$x = 3(-3) + 10$

$x = -9 + 10$

$x = 1$

$-7(3y + 10) + 5y = -22$

$-21y - 70 + 5y = -22$

$-16y = 48$

$y = -3$

(1, -3)

E 3) $6x + 9y = 15$
$2(-3x - y = 17)$

$-6x - 2y = 34$
$6x + 9y = 15$

$7y = 49$

$y = 7$

$-3x - 7 = 17$

$-3x = 24$

$x = -8$

(-8, 7)

5
4) $(-16x - 8y = 2)$
$2(40x + 20y = 0)$

$-80x - 40y = 10$
$80x + 40y = 0$

$0 \neq 10$

No Solution

E

5) $3x + 4y = 26$
$-\ 3x + 5y = 8$

$9y = 18$

$y = 2$

$3x + 4(2) = 26$

$3x + 8 = 26$

$3x = 18$

$x = 6$

$(6, 2)$

E

6) $-7x - 9y = 20$
$7x + 2y = 1$

$-7y = 21$

$y = -3$

$-7x - 9(-3) = 20$

$-7x + 27 = 20$

$-7x = -7$

$x = 1$

$(1, -3)$

$7(1) + 2y = 1$

$7 + 2y = 1$

$2y = -6$

$y = -3$

S

7) $-5x + 4y = 17$
$y = -8x - 5$

$-5x + 4(-8x - 5) = 17$

$-5x - 32x - 20 = 17$

$-37x = 37$

$x = -1$

$y = -8(-1) - 5$

$y = 8 - 5$

$y = 3$

$(-1, 3)$

S

8) $x = -6y + 3$
$-2x - y = 5$

$-2(-6y + 3) - y = 5$

$12y - 6 - y = 5$

$11y = 11$

$y = 1$

$x = -6(1) + 3$

$x = -6 + 3$

$x = -3$

$(-3, 1)$