Solve each system by elimination.

Feb. 24

+1 7x +1 -7x

1) $0 = -1 + 7x - 8y$
$3 - 21x = -24y$

$1 - 7x = -8y$ x(-3) $-3 + 21x = 24y$

$3 - 21x = -24y$ x(1) $3 - 21x = -24y$

0 0 0

no solution or an infinite number of solutions

Solve each system by elimination.

2) $-3x = -3 - 3y$

$\frac{2y}{1} - \frac{10}{7}x = \frac{2}{7}$ (x7)

Find x in (1)

$-3x = -3 - 3y$

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

$-3x = -3 - 18$

$\frac{-3x}{-3} = \frac{-21}{-3}$

$x = 7$

+3y +3y

$-3x = -3 - 3y$

$14y - 10x = 14x - 3$

$3y - 3x = -3x10$

$-42y + 30x = -42$

$30y - 30x = -30$

$\frac{-12y}{-12} = \frac{-72}{-12}$

$y = 6$

Solve each system by elimination.

1)

3) $-4x = -3y - 4$

2) $33 = 12y - 9x$

$4 = -3y + 4x \quad (\times 4)$

$33 = 12y - 9x$

$16 = -12y + 16x$

$+ \quad 33 = 12y - 9x$

$49 = 7x$

$x = 7$

Find y in (1)

$4 = -3y + 4(7)$

$4 = -3y + 28 \quad -28 \quad -28$

$-24 = -3y$

$8 = y$

$y = 8$

Solve each system by elimination.

4) $4x = 14 + 7y$
$3x = 10y + 1$

$4x = 14 + 7y \quad (\times -10)$
$3x = 1 + 10y \quad (\times 7)$

$-40x = -140 + -70y$
$+\ 21x = 7 + 70y$
$-19x = -133$
$-19 \quad -19$
$x = 7$

Find y in (1)

$4x = 14 + 7y$

PofI: $(7, 2)$

$4(7) = 14 + 7y$
$-14 \quad -14$
$28 = 14 + 7y$
$\frac{14}{7} = \frac{7y}{7}$
$y = 2$

check in (2)

L.S	R.S
$3x$	$10y + 1$
$3(7)$	$10(2) + 1$
21	$20 + 1$
	$= 21$

Solve each system by elimination.

5) $\frac{7}{13}y + \frac{2}{13}x = 1$ ×13

$-8y + 9x = 19$ 1×13

① $7y + 2x = 13$ (x-9)

$-8y + 9x = 19$ (x 2)

$-63y - 18x = -117$

$-16y + 18x = 38$

$-79y = -79$

$-79 \quad -79$

$y = 1$

Find x in ②

$-8y + 9x = 19$

$-8(1) + 9x = 19$

$+8 \quad +8$

$-8 + 9x = 19 + 8$

$\frac{9x}{9} = \frac{27}{9}$

$x = 3$

Solve each system by elimination.

6) $y + 2 = -x$

$8 = 8x - 4y$

$+x \quad -2 \qquad +x \quad -2$

$y + 2 = -x + y \quad x(4)$

$8 = 8x - 4y$

$-8 = -12x + 4y$

$8 = 8x - 4y$

$0 = 12x$

$x = 0$