Solve each system by substitution.

Feb. 23

1)

9) $-6x + 5y = -7$

2) $6x + y = -23$

Isolate y in (2)

$-6x \quad -6x$

$6x + y = -23$

$y = -6x - 23$

Substitute in (1)

$-6x + 5y = -7$

$-6x + 5(-6x - 23) = -7$

$-6x - 30x - 115 = -7$

$-36x - 115 = -7$

$+115 \quad +115$

$-36x = 108$

$\frac{-36x}{-36} = \frac{108}{-36}$

$x = -3$

Solve each system by substitution.

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

$x - 8y = 2$

$+8y \quad +8y$

$x = 8y + 2$

$-(8y+2) - 3y = -2$

$-8y - 2 - 3y = -2$

$+2 \quad +2$

$-11y = 0$

$-11 \quad -11$

$y = 0$

$x - 8y = 2$

$x - 8(0) = 2$

$x = 2$

$-x - 3y = -2$

$-(2) - 3(0) = -2$

$-2 - 0 = -2$

$-2 = -2$ ✓

$(2, 0)$