

Complete as many of the following problems as you can with your table. You do not have to go in order. If **your entire group** finishes early, and your answers have been checked, you may leave early.

1. Solve the following systems of equations using both elimination and substitution:

(a) $5x + y = 12$
 $6x - 4y = 4$

(b) $x + y = -3$
 $x - y = -1$

(c) $2x + 3y = 6$
 $4x = -6y + 12$

(d) $y = x - 2$
 $x + 5y = 20$

2. Solve the following systems of equations:

(a) $x + y + z = 6$	(b) $x + y + z = 0$	(c) $x + 2y + 3z = 4$	(d) $x + 3y + z = 6$
$-x + 2y + z = 6$	$x - y - z = 3$	$2x + y + 3z = 5$	$3x + y - z = 6$
$y + z = 5$	$x + 3y + 3z = 5$	$x - y + z = 2$	$x - y - z = 0$

Key:

1. (a) (2, 2)	(c) $(x, 2 - \frac{2x}{3})$	2. (a) (1, 2, 3)	(c) (1, 0, 1)
(b) (-2, -1)	(d) (5, 3)	(b) No solutions	(d) $(\frac{z+3}{2}, \frac{-z+3}{2}, z)$