

Solve each of the following systems by graphing

1. $y = 2x + 5$

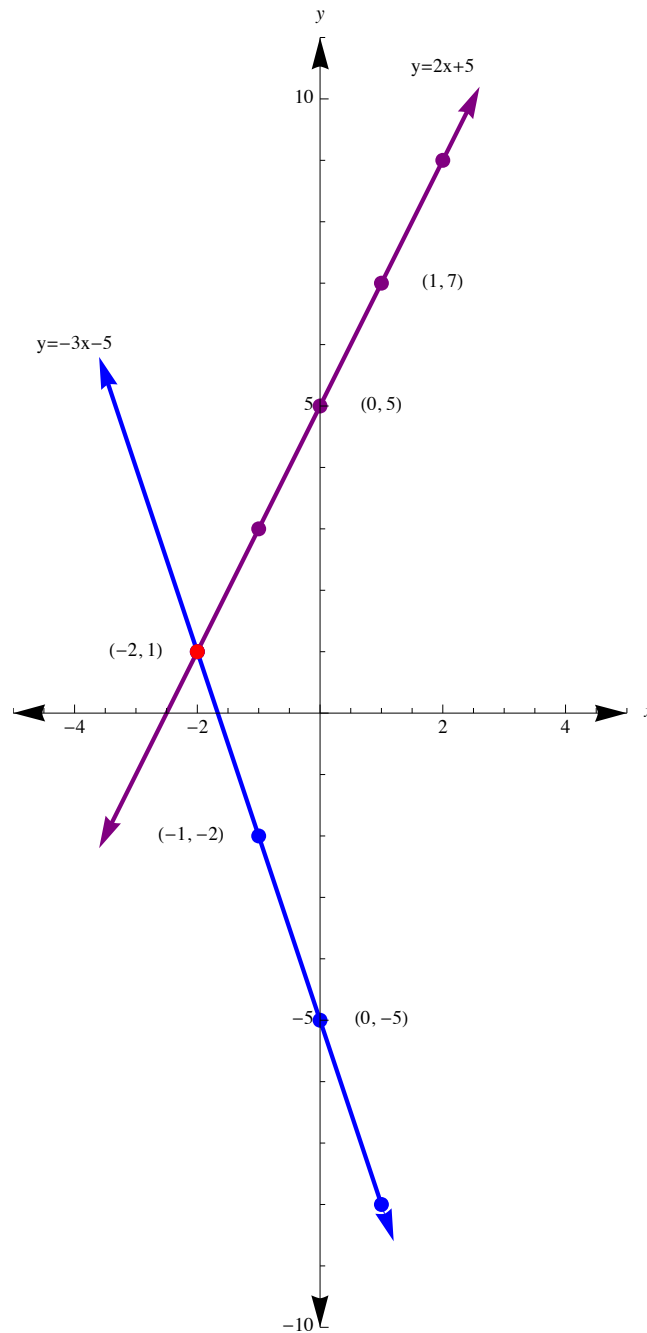
$y = -3x - 5$

Table of Values for $y = 2x + 5$:

x	y	(x, y)
-2	1	$(-2, 1)$
-1	3	$(-1, 3)$
0	5	$(0, 5)$
1	7	$(1, 7)$
2	9	$(2, 9)$

Table of Values for $y = -3x - 5$:

x	y	(x, y)
-2	1	$(-2, 1)$
-1	-2	$(-1, -2)$
0	-5	$(0, -5)$
1	-8	$(1, -8)$
2	-11	$(2, -11)$



2. $3x + 2y = 12$

$2y = -3x + 12$

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

$4x - y = -2$

$-y = -4x - 2$

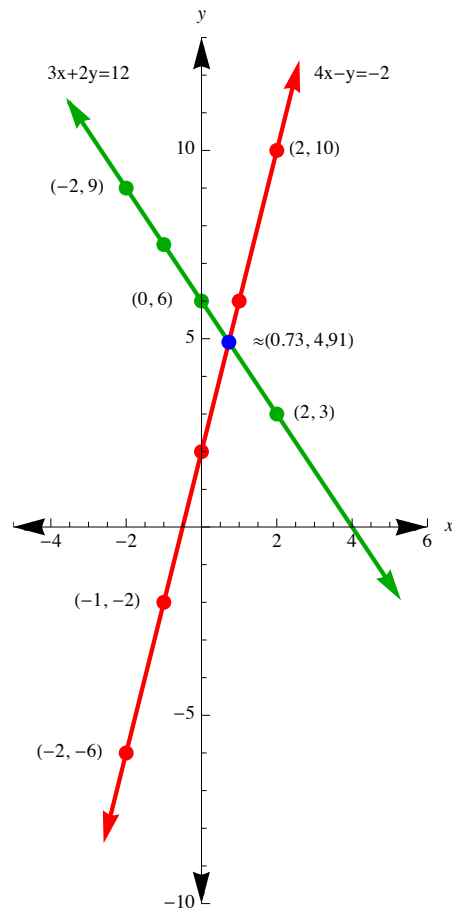
$y = 4x + 2$

Table of Values for $y = -\frac{3}{2}x + 6$:

x	y	(x, y)
-2	9	$(-2, 9)$
-1	$7\frac{1}{2}$	$(-1, 7\frac{1}{2})$
0	6	$(0, 6)$
1	$4\frac{1}{2}$	$(1, 4\frac{1}{2})$
2	3	$(2, 3)$

Table of Values for $y = 4x + 2$:

x	y	(x, y)
-2	-6	$(-2, -6)$
-1	-2	$(-1, -2)$
0	2	$(0, 2)$
1	6	$(1, 6)$
2	10	$(2, 10)$



Systems of Two Linear Equations 1 of 6 – Graphing

3. $y - 5 = 2x$

$-2x + y - 5 = 0$

$-2x + y = 5$

$2x - y = -5$

$x + 3y = -8$

$3y = -x - 8$

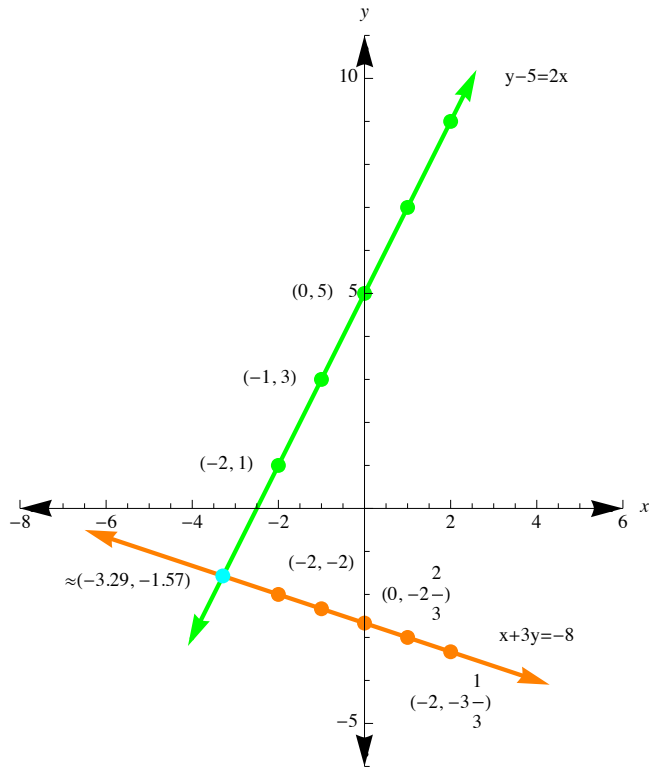
$y = -\frac{1}{3}x - 2\frac{2}{3}$

Table of Values for $2x - y = -5$:

x	y	(x, y)
-2	1	(-2, 1)
-1	3	(-1, 3)
0	5	(0, 5)
1	7	(1, 7)
2	9	(2, 9)

Table of Values for $y = 4x + 2$:

x	y	(x, y)
-2	-2	(-2, -2)
-1	$-2\frac{1}{3}$	$(-1, -2\frac{1}{3})$
0	$-2\frac{2}{3}$	$(0, -2\frac{2}{3})$
1	-3	(1, -3)
2	$-3\frac{1}{3}$	$(2, -3\frac{1}{3})$



4. $4x + y = 2$

$y = -4x + 2$

$4y + x = -2$

$4y = -x - 2$

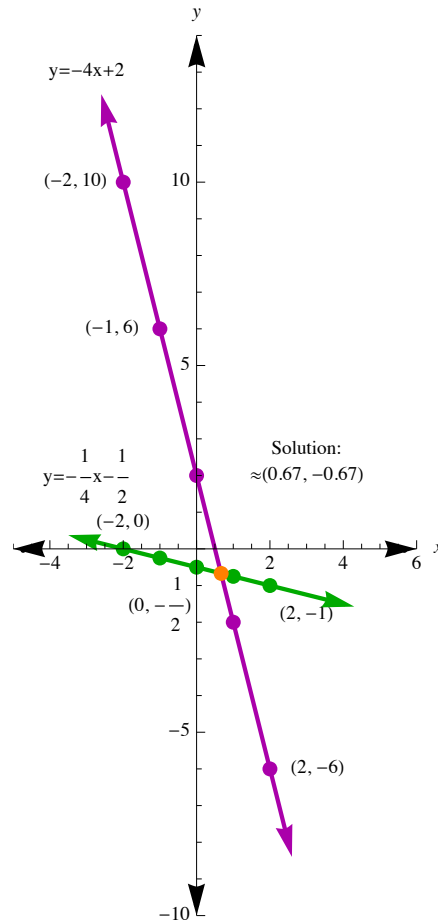
$y = -\frac{1}{4}x - \frac{1}{2}$

Table of Values for $4x + y = 2$:

x	y	(x, y)
-2	10	(-2, 10)
-1	6	(-1, 6)
0	2	(0, 2)
1	-2	(1, -2)
2	-6	(2, -6)

Table of Values for $4y + x = -2$:

x	y	(x, y)
-2	0	(-2, -6)
-1	$-\frac{1}{4}$	(-1, -2)
0	$-\frac{1}{2}$	(0, 2)
1	$-\frac{3}{4}$	(1, 6)
2	-1	(2, 10)



5. $y = -\frac{2}{3}x + 4$

$2x + 3y = 12$

$3y = -2x + 12$

$y = -\frac{2}{3}x + 4$

Since both lines are the same equation, the result will be a single line. Because they are the same line, there are infinite solutions.

