# Solving Equations by Comparison – day 2

Example 1

$y = x - 1$ ①

$y = 2x - 3$ ②

$y = y$

$x - 1 = 2x - 3$

$-1 + 3 = 2x - x$

$2 = x$

Sub into ①

$y = 2 - 1$

$= 1$

soln (2, 1)

Example 2

$3y + 2 = x$ ①

$x + 2y = 8 - y \rightarrow x = 8 - 2y - y$

$x = 8 - 3y$ ②

$x = x$

$3y + 2 = 8 - 3y$

$3y + 3y = 8 - 2$

$6y = 6$

$y = 1$

Sub into ②

$x = 8 - 3(1)$

$= 8 - 3$

$x = 5$

soln (5, 1)

**MPM 1D Solving Systems of Equations by Comparison 4.6 part 2** **Date:**_____

1. Rearrange each equation for the indicated variable.

a) $3y = 2 - x, x$ b) $3x + y - 1 = 0, x$ c) $4x - y = 3, y$ d) $4x - 2y + 6 = 0, y$

2. Solve each of the following systems using the comparison method.

**a)** $y = x - 1$
$y = 2x - 3$

**b)** $x = -2y + 3$
$x = 3y - 7$

**c)** $y = 2x - 2$
$y = -3 + 3x$

**d)** $2x + y = 1$
$x - y = 2$

**e)** $3x = y + 11$
$y = x - 5$

**f)** $3y + 2 = x$
$x + 2y = 8 - y$

**g)** $x + y = 0$
$2y - x = 3$

**h)** $5x - y = -13$
$y - 3x = 9$

**i)** $2x + y = 5$
$4x - y = 1$

**j)** $2x + 16 = 4y$
$4y - 3x = 18$

ANSWERS

**2. a)** (2, 1) **b)** (–1, 2) **c)** (1, 0) **d)** (1,–1) **e)** (3, –2) **f)** (5, 1) **g)** (–1, 1) **h)** (–2, 3) **i)** (1, 3) **j)** (–2, 3)