Solving Linear Simultaneous Equations by Substitution

(a) Solve
$$4x - y = 17$$
$$x = y + 2$$

(b) Solve
$$2x + y = 6$$
$$y = 4x + 3$$

(c) Solve
$$3x + 7y = 13$$
$$y = x - 11$$

(a) $x = 5, y = 3$

(b) $x = \frac{1}{2}, y = 5$

(c) $x = 9, y = -2$

(a) Solve
$$4x - 3y = 7$$
$$3y = x + 5$$

(b) Solve
$$y + 1 = 3x$$
$$2x - 3y = 24$$

(c) Solve
$$3x + 5y = 29$$
$$y + 11 = 5x$$

(a) $x = 4, y = 3$

(b) $x = -3, y = -10$

(c) $x = 3, y = 4$

(a) Solve
$$4x + 6y = 74$$
$$11 - y = 2x$$

(b) Solve
$$y - 8 = 6x$$
$$4x + 5y + 28 = 0$$

(c) Solve
$$8 - x = 3y$$
$$10 - 3x = 5y$$

(a) $x = -1, y = 13$

(b) $x = -2, y = -4$

(c) ~~$x = 3.5$~~ $x = -2.5$, $y = 3.5$

(a) Given that $7x = 2y + 34$ and $3x + 5y + 3 = 0$, find the value of $x^2 + y^2$

(b) Solve
$$\frac{3x+1}{2} = y$$
$$5y - 4x = 13$$

(c) Find the coordinates of intersection of the straight lines with equations
$$y = 3x - 2$$
$$x + 3y = 19$$

(a) $x = 4, y = -3$
$x^2 + y^2 = 25$

(b) $x = 3, y = 5$

(c) $x = 2.5, y = 5.5$
$(2.5, 5.5)$