

Simultaneous Equations



- i. Use the method of substitution to find x and y for each of the following pairs of simultaneous equations**

$$x = y + 3$$

$$x = 2y - 5$$

$$y = 3x$$

$$x = 2y + 10$$

$$x = -4y + 1$$

$$y = -\frac{1}{5}x$$

$$x = 5y - 5$$

$$y = x - 7$$

- ii. Use the method of elimination to find x and y for each of the following pairs of simultaneous equations**

$$2x + 3y = 19$$

$$4x + y = 23$$

$$3x - 4y = 16$$

$$x + 2y = 2$$

$$\frac{1}{2}x + 3y = 40$$

$$2x + \frac{1}{3}y = 20$$

$$3x - 2y = -11$$

$$-4x - y = 22$$

- iii. Solve the following pairs of simultaneous equations to find x and y**

$$x = 3y^2$$

$$y = 2x$$

$$x^2 = y$$

$$y = 3x$$

$$y = x^2 - 3x$$

$$y = 4$$

$$x^2 + 6x = y + 3$$

$$y + 2x = -15$$