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Dept: mechatronics

Reg No: 14/ENGT05/042

Course Code: Mat 102

Course Title: General mathematics II

$$1) x^2 + y^2 - 5x - y + 4 = 0$$

Soln

$$2x + 2y - 5 - 1 = 0$$

$$2(1) + 2(0) - 5 - 1 = 0$$

$$2 + 0 - 5 - 1 = 0$$

$$= -4$$

$$y - y_1 = m(x - x_1)$$

$$y - 0 = -4(x - 1)$$

$$y = -4x + 4$$

$$2) x^2 + y^2 - 12x - 12y + 47 = 0$$

Soln

$$2x + 2y - 12 - 12 = 0$$

$$2(1) + 2(0) - 12 - 12 = 0$$

$$2 + 0 - 12 - 12 = 0$$

$$2 + (-24)$$

$$= -22$$

$$y - y_1 = m(x - x_1)$$

$$y - 0 = -22(x - 1)$$

$$y = -22x + 22$$

$$3) x^2 + y^2 - 8x + 14 + 40 = 0$$

Solution

$$2x + 2y - 8 = 0$$

$$2(1) + 2(0) - 8 = 0$$

$$2 + 0 - 8 = 0$$

$$= -6$$

$$y - y_1 = m(x - x_1)$$

$$y - 0 = -6(x - 1)$$

$$y - 0 = -6x + 6$$

$$y = -6x + 6$$