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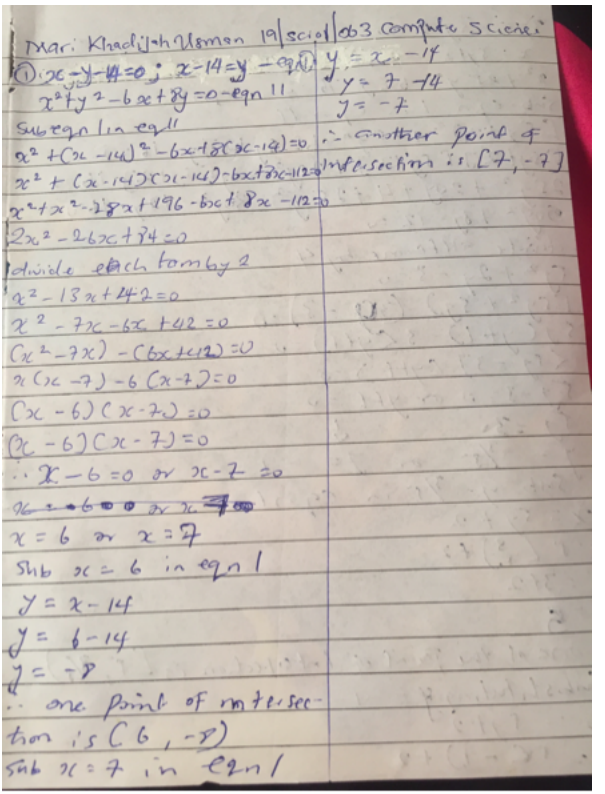
19/sci01/063
Computer science



3) $x - 5y - 2 = 0$

$x = 5y + 2$ — eqn I

$x^2 + 25y^2 - 6xy - 16 = 0$ — eqn II

Sub eqn I in eqn II

$[5y+2]^2 + 25y^2 - 6[5y+2]y - 16 = 0$

$[5y+2][5y+2] + 25y^2 - 6y[5y+2] - 16 = 0$

$25y^2 + 20y + 4 + 25y^2 - 30y^2 - 12y - 16 = 0$

$30y^2 + 8y - 12 = 0$

divide all terms by 4

$5y^2 + 2y - 3 = 0$

$(5y^2 + 5y) - (3y - 3) = 0$

$5y(y+1) - 3(y+1) = 0$

$(5y - 3)(y+1) = 0$

$5y - 3 = 0$ or $y + 1 = 0$

$5y = 3$ ↓

$y = 3/5$ or $y = -1$

Sub $y = 3/5$ in eqn I

$x = 5y + 2$

$x = 5\left(\frac{3}{5}\right) + 2$

$x = 3 + 2$

$x = 5$

∴ one of the Points of Intersection is $(5, 3/5)$

Substituting $y = -1$

$x = 5y + 2$

$x = 5(-1) + 2$

$x = -5 + 2$

$x = -3$

$\therefore$ another point of intersection is $[-3, -1]$