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Math 40
FP2 - Systems of Linear Equations
Fri. 1/26, 2016

2.1 {8, 10, 12, 22, 38, 40}

8 Find a linear equation that has the same solution set as

$$\frac{x^2-y^2}{x-y} = 1$$

■

10 Find a linear equation that has the same solution set as

$$log_{10}x - log_{10}y = 2$$

■

12 Find the solution set of

$$2x_1 + 3x_2 = 5$$

■

22 Solve by back substitution.

$$\begin{aligned} x_1 + 2x_2 + 3x_3 &= 0 \\ -5x_2 + 2x_3 &= 0 \\ 4x_3 &= 0 \end{aligned} \tag{1}$$

■

38 Solve the linear system:

$$\left[\begin{array}{ccccc|c} 1 & -1 & 0 & 3 & 1 & 2 \\ 1 & 1 & 2 & 1 & -1 & 4 \\ 0 & 1 & 0 & 2 & 3 & 0 \end{array}\right]$$

■

40

(a) Find a system of two linear equations in the variables x_1, x_2, and x_3 whose solution set is given by the parametric equations $x_1 = t$, $x_2 = 1 + t$, and $x_3 = 2 - t$.

(b) Find another parametric solution to the system in part (a) in which the parameter is s and $x_3 = s$.

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