**Class Discussion: Nov 1st**

**Systems of linear equations: 2 unknowns**

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(A) Solve each of the following pairs of linear equations using the method of *substitution*. *Check* your answers. Sketch the lines.

1. y = 3x – 5

 y = -4x + 9

2. 2x + y = 11

 x + 3y = 18

3. 3x – y = 10

 5x – 9x = -20

(B) \* Solve each of the following systems of linear equations by Gaussian elimination. Determine which are *inconsistent* and which are *dependent*.

Check your answers if time permits.

1. 7x + 2y = 47

 5x – 4y = 1

1. 2x – 5y = 1

 7x + 3y = 24

1. 5x – 10y = 3

 x – 2y = 8

1. 3x + 4y = 10

 4x + y = 9

1. x + 2y = 13

 3x + 4y = 14

1. 4x + 7y = 29

x + 3y = 11

1. 15x + 77y = 92

55x – 33y = 22

1. 3x = 7y

12y = 5x – 1

1. x – y = 5

 x/4 – y/5 = 2

1. 5(x + 2y) – (3x + 11y) = 14

 7x – 9y – 3(x – 4y) = 38

1. x/2 – y/5 = 4

 x/7 – y/15 = 3

1. 3x – y = 8

 33x – 11y = 88

\* Problems from Hall & Knight, Elementary Algebra (1896)

[*What is straight? A line can be straight, or a street, but the human heart, oh, no, it's curved like a road through mountain*s.](http://www.brainyquote.com/quotes/quotes/t/tennesseew105793.html)

- Tennessee Williams

