Unit 4: Systems of equations

(Chapter 4, page 158)

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Systems of equations in two variables	
Solving Systems of equations in two variables by: 1. Graphing	
2. Substitution	
3. Elimination	
(What is the difference between substitution and elimination?)	
Graphing Possible scenarios Intersecting lines: Unique solution	Page 160
Parallel lines:	
Same line:	
Examples: (give equations, and plot in the graphs).	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10

Substitution method $ \begin{cases} 2y + x = 1 \\ 3y - 2x = 12 \end{cases} $	Page 162
Elimination (aka linear combination) $\begin{cases} 3x-4y = -1 \\ -3x + 2y = 0 \end{cases}$	Page 163
Cramer's rule (we proved in class for the two-variable case)	Page 166
Solution: $\begin{cases} ax + by = c \\ dx + ey = f \end{cases}$ $x = \frac{ce - bf}{ae - bd}$ $y = \frac{af - cd}{ae - bd}$	
Example: $\begin{cases} 5x-2y = 10 \\ -8x + 0.4y = 40 \end{cases}$	

Word problems	Page 169 + HW
Mixtures	
Digits/Numbers	
Distance	
System of 3 (three) equations System of inequalities	

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