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Study Guide for Unit 2, Unit 3 and Unit 4

Unit 2 (Chapter 3) Solving Equations

1. Solve for . Check your solution.

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Unit 3 (Chapter 4) Linear Systems

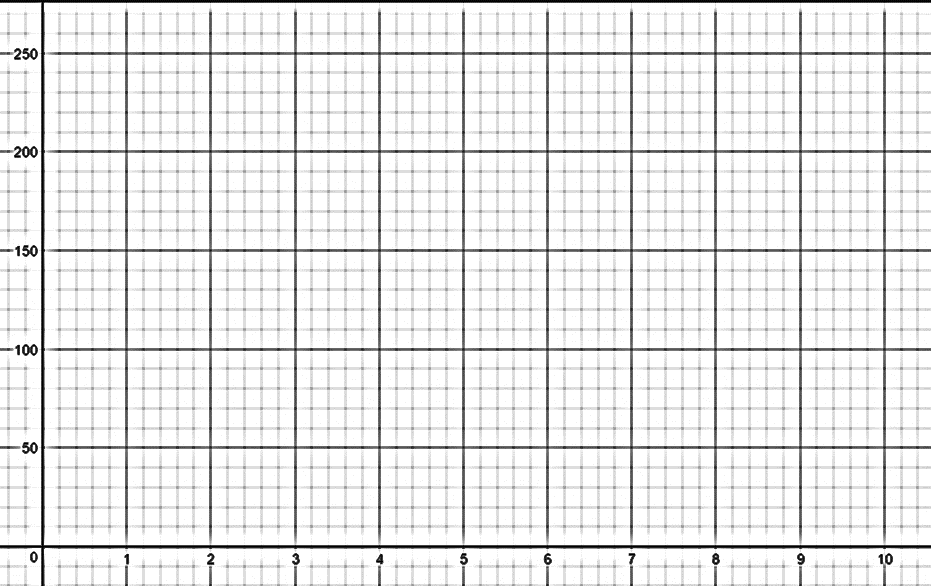
1. Explain what the solution to a system of equations is.
2. What are the 4methods we used to solve linear systems?
3. Practice using each method by deciding which method is best used for these problems.

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1. I want to get gym membership but I am not sure which one to get. There are 2 gyms close to our house. Planet Fitness and Anytime Fitness. Planet Fitness is doing a Memorial Day sale of $10 a month and $100 initial payment which they will donate to a charity of your choice. Anytime Fitness is not running a sale right now. Their plan is $60 a month but with no initial fee. When will these memberships be the same price?
2. Write the two equations that represent the total cost for a gym membership at Planet Fitness and at Anytime Fitness. Write let statements to define what and stand for.

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| --- | --- |
| Let | Let |
| Planet Fitness: | Anytime Fitness: |

1. Solve using the graphing method and one algebraic method. Did you get the same answer? At how many months? What is the cost?



1. If I only want to go to the gym for the first 4 months, which gym membership should I get? Why?

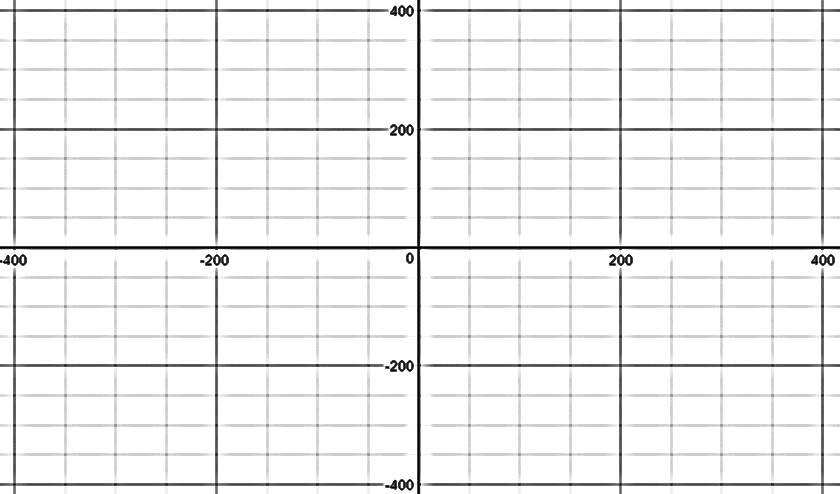
Unit 4 (Chapter 9 section 2) Linear Inequalities

1. When graphing inequalities in one-variable, when do you use an open circle?
2. When graphing inequalities in one-variable, when do you use an close circle?
3. When do you flip the inequality symbol?
4. When graphing inequalities in two-variables, when do you use a dashed line?
5. When graphing inequalities in two-variables, when do you used a solid line?
6. How do you know which side to shade?
7. Solve the inequalities. Then graph the solution set on the number line.

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1. Solve the system of inequalities by graphing.

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1. Camille is selling bracelets and earrings to make money for her summer vacation plans. The bracelets cost $2 and the earrings cost $3. She needs to make at least $500 to afford her summer plans. Let y = number of bracelets sold and x = number of earrings sold. Create and graph the inequality that this situation represents. Choose 3 points within the solution set and explain what each point is representing and if it is a viable solution.