Alg 1CP Test Unit 2 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_

**Part I: Solving Algebraically**

***For 1-2, solve, check, and graph. Circle your solution.***

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| 1. $4+z<2$Check Graph

 http://i.ehow.com/images/a04/so/7c/make-number-line-math-1.3-800X800.jpg |
| 2. $-4<\frac{x}{5}-1$ Check Graph http://i.ehow.com/images/a04/so/7c/make-number-line-math-1.3-800X800.jpg |

***For 3-4, solve and graph.***

|  |  |
| --- | --- |
| 3. $-3x-6\geq -3 or 4x-7<9$   |  3.Solution Graphhttp://i.ehow.com/images/a04/so/7c/make-number-line-math-1.3-800X800.jpg |
| 4. $4w<12 and-2<w$  |  4.Solution Graphhttp://i.ehow.com/images/a04/so/7c/make-number-line-math-1.3-800X800.jpg |

***For 5-10, solve only.***

|  |  |
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| 5. $3\left(p-3\right)-4\left(p-4\right)\geq 6p-14$ 6. $\frac{3}{5}+\frac{4x}{10}>\frac{3x}{15}$ | 5. |
| 6. |
| 7. $\frac{-2x+7}{5}\leq 3$ 8. $-5<3x+10\leq 19$  | 7. |
| 8. |

**Part II: Literacy - Write an inequality to represent the following:**

|  |  |
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| 9. A number decreased by 6 is less than 21.  | 9.  |
| 10. Negative five times a number minus four is no more than the number plus nine. | 10. |
| 11. One third of a number increased by two is at least three.  | 11.  |
| 12. The quotient of nine and a number is no greater than the sum of three times the number and five. | 12. |

**Part III: Applications**

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| 13. Fred has $125 to spend at the mall. He purchases a music video for$29 and a pair of jeans for $38. He also spent $7 for lunch. Fred still wants to purchase a video game. Assuming it is a tax-free day, **how much money can** **he spend on a video game?**  | 13. |
| 16. Jerry has lost his wife’s favorite necklace, so he will rent a metal detector to try to find it. A rental company charges a one-time rental fee of $25 plus $3 per hour. If Jerry has only $40 to spend, ***what is the maximum amount*** ***of time he can rent the metal detector?*** | 16.  |
| 17. Jack has $5,500. He wants to buy a boat within $1,400 of this amount. **Write an** **inequality statement that represents the range** **of boat prices he can purchase.**  | 17. |

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| ***Bonus: Write and graph a compound inequality with the following solution sets:*** |
| a) No Solution | http://i.ehow.com/images/a04/so/7c/make-number-line-math-1.3-800X800.jpg Inequality Graph |
| b) All Real Numbers | http://i.ehow.com/images/a04/so/7c/make-number-line-math-1.3-800X800.jpg Inequality Graph  |