~ Semester in Review ☺

**#1 Exponential Growth and Decay**

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| The function y = 290,000 (0.92)x represents the value of an old home that has been abandoned by its owners x years ago. Find the decay rate of the old home. | The function *y* = 187900 (1.025)*x* represents the value of a home *x* years after purchase. How much is the home worth after 12 years? |

#2 Factor

|  |  |  |
| --- | --- | --- |
| A. | B. | C. |
| D. | E. | F. |

#3 Solve each of the following quadratics factoring. Set factors = 0 and SOLVE!

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| A. | B. |

Part 4….Miscellancous

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| 5. What is the slope and y intercept for | 6. Write an equation for direct variation that passes through (-4,12) |
| 7. Suppose you invest $4000 in an account with 4.5% interest compounded monthly. How much will you have in 7 years? | 8. Factor |
| 9. Simplify: | 10. Simplify: |
| 11. Factor: | 12. Find the solutions to |
| 13. Write using rational exponents | 14. Simplify: |
| 15. Simplify: | 16. Solve: |
| 17. Evaluate: | 18. Solve: 7-( x + 4) < 12 |
| 19. Solve: | 20. Solve: |
| 21. Solve: | 22. Solve: |
| 23. Solve for p: | 24. Factor: |
| 25. Solve: | 26. Write the equation of a line that is parallel to y = 3x-6 and passes through (-4,7) |