**HW #307**

**Practice Review for Test 302**

*There are 24 points possible. To get full credit for this assignment, you must hand in your graded assignment before the test on test day. You must show that you graded the assignment from the website by indicating the original number correct over 24. To receive full credit you must show that you corrected the problems that were originally missed. Students who do not show sufficient work to prove that answers were not merely copied from the web site will receive a ZERO for this assignment.*

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| For #1 - 3, graph the system of linear inequalities and answer the additional question. | | | |
| 1)  give a solution:  \_\_\_\_\_\_\_\_ | 2)  non-solution:  \_\_\_\_\_\_\_\_ | | 3)  Is there a  solution to this system? \_\_\_\_\_\_\_ |
| 4) Is (7, -1) a solution of this system: | | | |
| 5) Two Hot Air Balloons are ascending at the Texas Hot Air Balloon Festival. One balloon takes off from a hill (from a higher altitude) than the other. The table below records the ascent of each balloon over time. **Write** a system of linear equations that represents the situation.   |  |  |  | | --- | --- | --- | | HEIGHT (in feet) | | | | Minutes | Balloon 1 | Balloon 2 | | 0 | 36 | 0 | | 1 | 62 | 30 | | 2 | 88 | 60 | | 3 | 114 | 90 |   When will the balloons be at the same height? | | 6) Write a system of linear inequalities represented by the graphs below.  TA: C:\cur_proj\July 2014\AB art\book\Arts\PNGs\HSAlg1_ab_0500_016.png  TA: C:\cur_proj\July 2014\AB art\book\Arts\PNGs\HSAlg1_ab_0500_015.png   1. b. | |
| 7) Dan has a Peanut Mix that sells for $2.23 a pound and an Almond Mix that sells for $1.75 a pound. How many pounds of peanuts and almonds should be combined to create 16 pounds of a Peanut/Almond Mix that will sell for $1.93 a pound? | | | |
| 8) Two students are going to the store to buy school supplies for the new school year. One of the students buys 2 packs of pencils and 3 packs of pens for $8.25. Her friend purchases 5 packs of pencils and 2 packs of pens for $11.00. Is there enough information to determine the cost of 1 pack of pencils and  1 pack of pens? If so, find the cost of each? | | | |
| 9) a) Use the function  to find  b) Use the function above to find *x* if | | | |
| 10) What is the equation in slope-intercept form of the line that is **perpendicular** to and goes through the point (16, 2)? | | | |
| 11) Solve the following equation for *x.* | | | |
| 12) What is the equation of a line that contains the point (-1, 24) and has an undefined slope? | | 13) What is the equation in STANDARD FORM that created this table of values?   |  |  | | --- | --- | | *x* | *f(x)* | | 1 | -4 | | 2 | 2 | | 3 | 8 | | |
| 14) You have $8.80 in pennies and nickels. You have twice as many nickels as pennies. Write a system of linear equations that models the situation. How many of each type of coin do you have? | | | |
| 15) You make $5 an hour in tips working at a video store and $7 an hour in tips working at a landscaping company. You must work at least 4 hours per week at the video store, and the total number of hours you work at both jobs in a week cannot be greater than 15.  a. Write a system of linear inequalities to model the number of hours that you could work at each location in a week.  b. Graph the system of linear inequalities.  **TA: C:\cur_proj\July 2014\AB art\book\Arts\PNGs\HSAlg1_ab_0500_014.png**  c. Identify and interpret a solution of the system. | | | |