Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_

**Activity Sheet T3–1b** **Review 2**

1. 3(0.5x+9) =2(4x+1) x= \_\_\_\_\_\_\_\_\_\_ 2. 2(– x2 – 2y) – (– x2 + 4y) = \_\_\_\_\_\_\_\_\_\_\_

3. 3x2–27 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. 354x44y8 = \_\_\_\_\_\_\_\_\_\_\_\_\_

 x –3 73x3 53y3

5. 9.6 X 105 **•** 7.3 X 108 =\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. √56 + 2√126 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ( in scientific notation) ( in simplified radical notation)

7. Given f(x) = 5x2  + 9 : f(– 3)= \_\_\_\_\_\_\_\_\_\_ 8. (2x – 5) (2x + 5) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Jose spent $144 plus ‘x’ on tickets, the first event cost ‘x’ plus 12 dollars and the second event cost $18 less than 3 times first event. Find x. x = \_\_\_\_\_\_\_\_\_\_\_\_

10. Given: y = 3(x + 4) + 5 → y = 3(x + 4) + 2. Type: \_\_\_\_\_\_\_\_\_\_\_\_\_11. Effect: \_\_\_\_\_\_\_\_\_\_\_\_

 (type of transformation) (left/right/up/down & #of spaces)

12. Graph the solution to the following system of inequalities on the number line below:

 x ≥ – 3 and –3x > – 6 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

13. 4 – 6x = –10x – 4 x = \_\_\_\_\_\_\_\_ 14. Graph: x – 3 ≥ 6

 2 12 (for #14) 2

15. Find ‘x’: 6x2  + 2 = 56 x=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. Equation and zero(s) of the line through the points (7,2) and (1,6)\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 (slope intercept form) zero(s) (bonus)

17. Determine the equation of table (a.) AND write the domain and range.

(a.) Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Given:**

Price(x) Shipping Costs(y)

1.00 0.50

1.25 1.00

1.50 1.50

1.75 2.00

2.00 2.50

 (Point-Slope form) 7 1 18. Function:?

 Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 6

 (Inequality Notation) 6 2 **Yes / No**

 Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –3 1

 (Inequality Notation) 7 –3

**19.** Graph: 3x + y = –3 **20.** Solve the system of equations; **21.** Find the equation of the sequence:

 y + 3 = 4(x + 1) – 1 –6, –18, –54, –162, –486,….

 2x – 3y = 6

 Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_ Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_

22. Write the Equation, Domain & Range: 23. Equation through point (3, 5)

 Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(standard form) ⊥ to y= 5(x–4) + 2

 Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Inequality Notation) (bonus) Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Range:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (slope intercept form)

 (Inequality Notation) (bonus)

 24. Write the Equation and r2 for the scatterplot:

 Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ r2 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (slope intercept form) (bonus)

25. How much air would be in a balloon after 20 hours if you started with the volume of the balloon of 5600 in3  and if it leaked out at a rate of 3.6% per hour? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_