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

**Activity Sheet T3–1a** **Review 1**

1. 2(1.5x+10) =3(x+6) x= \_\_\_\_\_\_\_\_\_\_ 2. 4(– 2x2 – y) – (– 7x2 + 3y) = \_\_\_\_\_\_\_\_\_\_\_

3. 2x + 8 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. 3x44y5 = \_\_\_\_\_\_\_\_\_\_\_\_\_

 x + 4 23x2 y3

5. 1.4 X 106 **÷** 7 X 109 =\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. √32 + 3√12 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ( in scientific notation) ( in simplified radical notation)

7. Given f(x) = 3x2  + 8 : f(2)= \_\_\_\_\_\_\_\_\_\_ 8. (x – 6) (x + 6) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Jose spent $108 on tickets to two events, the first event cost x plus 6 dollars and the second event cost $18 less than 2 times first event. Find x. x = \_\_\_\_\_\_\_\_\_\_\_\_

10. Given: y = 3(x + 4) + 2 → y = 3(x– 3) + 2. Type: \_\_\_\_\_\_\_\_\_\_\_\_\_Effect: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (bonus)

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

 x ≥ – 2 and –2x > – 6 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

12. 8 – 2x = –11x + (– 6) x = \_\_\_\_\_\_\_\_ 13. Graph: 2x + 3 < 12

 5 31 8 (for #13)

14. If ( x, – 4) is a solution for: 3x + 6y = 18 x=\_\_\_\_\_\_\_\_

15. Equation and zero(s) of the line through the points (2,4) and (3,9)\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

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

16. Determine whether table (a.) is a function or non-function AND write the domain and range.

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

Price(x) Shipping Costs(y)

3.00 0.99

3.01 1.00

3.01 1.01

3.02 1.02

3.02 1.03

 (Yes/No) 2 1 17. Function:?

 Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 6

 (bonus) 5 2 **Yes / No**

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

 (bonus) 8 –3

**18.** Graph: y = 2x–5 **19.** Solve the system of equations; **20.** Find the equation of the sequence:

 y = 4x + 1 6, 12, 24, 48, 96, 192, ….

 y = –2x+1

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

21. Write the Equation, Domain & Range: 22. Equation through point (8, 3)

 ○ Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (standard form) || to y= 3(x+4) – 2

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

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

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

 (Inequality Notation) (bonus)

23. How much money would you have in the bank after 50 years if you started with $1900 and if it earned at an interest rate of 5% per year?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

24. Calculate the constant of variation in the following table:

 1 | 2 | 3 | 4 | 5

 7 | 14 | 21 | 28 | 35 constant of variation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_