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

**Activity Sheet T3–1c** **Review 3**

1. 6(2x+1) =3(4x+2) x= \_\_\_\_\_\_\_\_\_\_\_\_\_ **2.** 3(– 5x2 – 7y) – 5(–4x2 + 8y) =\_\_\_\_\_\_\_\_\_\_\_

3. 4x2–16 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ **4.** 84x542y8 **•** 168x3 643y−6 = \_\_\_\_\_\_\_\_\_\_\_\_\_

 x + 2

5. 2.5 X 10120 ÷3.25 X 10110 =\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 3√72 + 2√108 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ( in scientific notation) ( in simplified radical notation)

7. Given: 2x2  + 14 :Find x \_\_\_\_\_\_\_\_\_\_ When f(x) = 22 **8.** (x – 2) (2x2 + 5x) = \_\_\_\_\_\_\_\_\_\_\_

9. How much air would be in a hot air balloon after 30 minutes if you started with the volume of the balloon of 5000 ft3  and if it increased at a rate of 2.8% per minute? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Given: y = 2(x + 4) + 5 → y = 5(x + 4) + 5. Type: \_\_\_\_\_\_\_\_\_\_\_\_\_**11.** Effect: \_\_\_\_\_\_\_\_\_\_\_\_

 (type of transformation) (left/right/up/etc… & amount)

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

 –2x > 8 and 3x + 3 ≥ 6 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

13. 9 – 2x = –13x – 8 x = \_\_\_\_\_\_\_\_ **14.** Graph: –2x – 5 ≤ 9

 5 19 (for #14) 3

15. Find zero(s): x2  + 5x + 4 = 0 zero(s)=\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. Equation and zero(s) of the line through the points (9, 12) and (–1,7)\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

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

17. Based on table (a.), write the equation and find shipping cost at $4.50.

(a.) Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Given: 18.** Function:?

Price(x) Shipping Costs(y)

2.10 0.49

2.45 0.98

2.80 1.47

3.15 1.96

3.50 2.45

 (Point-Slope form) 2 –15 **Yes / No**

 5 25 **19.** Equation:

 1 –3 (standard form)

 Cost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –2 9

 (bonus) 8 13\_\_\_\_\_\_\_\_\_\_\_\_

**20.** Graph: 2x + y ≤ –2 **21.** Solve the system of equations; **22.** Find the equation of the sequence:

 y + 2 = 5(x + 6) – 2 0, 3, 10, 21, 36, 55….

 4x – 7y = 16

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

23. Write the Equation, Domain & Range: **24.** Equation through point (9, 2)

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

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

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

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

 (Inequality Notation) (bonus)

 25. Write the Equation and r2 for the scatterplot. Is the scatterplot a function?:

 Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ r2 =\_\_\_\_\_\_\_\_\_\_\_\_ **26.** Function = **Yes / No**

 (slope intercept form) (bonus)