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

**Activity Sheet T3–1e** **Review 5**

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

3. 8x2–72 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ **4.** 88x542y8 = \_\_\_\_\_\_\_\_\_\_\_\_\_

 x – 3 164x3 643y−6

5. 2.5 X 10150 •3.2 X 10100 =\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 3√48 + 2√112 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ( in scientific notation) ( in simplified radical notation)

7. Given: 3x2  – 24 :Find x \_\_\_\_\_\_\_\_\_\_ When f(x) = 24 **8.** (2x – 2) (3x2 – 5x +1)=\_\_\_\_\_\_\_\_\_

9. Is (– 3± √137)/8 the solutions to y = 4x2 + 3x – 8 ? **Yes / No**

10. How much air would be in a hot air balloon after 40 minutes if you started with the volume of the balloon of 6000 ft3  and if it increased at a rate of 5.2% per minute? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Given: y = 2x 2 + 5 → y = 2x 2 – 1. **11.** Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**12.** Effect: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

 –8x > – 8 and –3x + 1 ≤ 10 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

14. 9x – 8 = –23 – 8x x = \_\_\_\_\_\_\_\_ **15.** Graph: 5x – 9 ≤ 10

 4 21 (for #15) 6

16. Find zero(s): 4x2  + 4x + 1 = 0 zero(s)=\_\_\_\_\_\_\_\_\_\_\_\_\_

17. Equation & zero(s) of the line through the points f(1)=7 and (–3, –4)\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 (standard form) zero(s) (bonus)

18. Based on table (a.), write the equation and find shipping cost at $9.55 .

(a.) Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Given: 19.** Function:?

Price(x) Shipping Costs(y)

4.05 0.38

4.45 0.90

4.85 1.42

5.25 1.94

5.65 2.46

 (Slope-Intercept form) –4 10 **Yes / No**

 5 2 **20.** Equation:

 2 6 (standard form)

 Cost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –1 – 6

 (bonus) 8 –2 \_\_\_\_\_\_\_\_\_\_\_\_

**21.** Graph: –4x+2y < 8 **22.** Solve the system of equations; **23.** Find the equation of :

 y + 2 = 3(2x + 6) – 4 ♦ ; ♦ ♦ ; ♦ ♦ ♦ ; ♦ ♦ ♦ ♦ ♦;…

 x – 6y = 12 ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦

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

 (point-slope form)

24. Determine Function, and Domain & Range: **25.** Equation through point (4, – 2)

 Function? **Yes / No** ⊥ to 2x +3y = 6

 **○** Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

 (Inequality Notation) (bonus)

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

 Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ r2 = \_\_\_\_\_\_\_\_\_\_\_\_ **27.** Function:? **Yes / No**

 (slope intercept form) (bonus)