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

**Activity Sheet T3–1h** **Review 8**

1. x(8x+3) = 4(2x2+ 9) x= \_\_\_\_\_\_\_\_\_ **2.** 5(3x2 + 8y – 1) – 2(–8x2 – 3y) + 11 =\_\_\_\_\_\_\_\_\_\_\_\_\_

3. 11x2–99 = \_\_\_\_\_\_\_\_\_\_\_\_ **4.** 128x927⅔ y−5  = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 x – 3 164x−2 360y8

5. 9.5 X 10175 **•** 6.2 X 10140 =\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 4√45 + 9√405 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ( in scientific notation) ( in simplified radical notation)

7. Given: 9x2  – 52 :Find x \_\_\_\_\_\_\_\_\_\_ When f(x) = 92 **8.**Factor: 2x2 – 9x –5 =\_\_\_\_\_\_\_\_\_\_\_

9. Is 5 ± 2√ 37 the solutions to y = –2x2 – 10x + 6 ? **Yes / No**

 –2

10. What altitude (in feet) would you be in a hot air balloon after three hours if you started with at an altitude of 18,000 feetand if it lowered at a rate of 3.3% per minute? \_\_\_\_\_\_\_\_\_\_\_\_

Given: f(x) = 2(x 2 +2)→ 2(x 2  + 9) **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:

 –3x – 8 ≤ 7 and 2x + 5 < 21 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

14. 2x + 1 = 4 x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **15.** Graph: 6x – 12 < –11 + 3x

 3 3x + 2 (for #15) 5

16. Find zero(s): 2x2  + 6x + 5 = 0 zero(s)=\_\_\_\_\_\_\_\_\_\_\_\_\_

17. f(12)= ? & zero(s) of the line through the points 9=f(2) and (7, 8). f(12)= \_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 zero(s) (bonus)

18. Based on table (a.), write the equation and find shipping cost of 133.29 pounds .

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

Lbs. (x) Shipping Costs(y)

1.00 1.78

3.28 10.3984

4.89 16.4842

6.55 22.759

8.39 29.7142

 (Slope-Intercept form) 4 12 **Yes / No**

 –8 9 **20.** Equation:

 8 7 (standard form)

 Cost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4 6

 (bonus) 12 –3 \_\_\_\_\_\_\_\_\_\_\_\_

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

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

 4x – 8y –18 = 0

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

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

24. Determine Function, and Domain & Range: **25.** Equation through point (– 6, 9)

 Function? **Yes / No** || to 7x – 2y = 9

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

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

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

 ‘a’ (Inequality Notation) (bonus)

 ‘b’ Write the equations of line ‘a’ and ‘b’

 26. Line ‘a’ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **28.** Write in vertex form: y= 2x2 – 8x +5

 (standard form)

 27. Line ‘b’ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (slope intecept form)