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

**Activity Sheet T3–1g** **Review 7**

1. 3(–5x+6) = 7(3x+7) x= \_\_\_\_\_\_\_\_\_ **2.** 4(6x2 – 2y + 10) – 6(–9x2 + 4y) – 12 =\_\_\_\_\_\_\_\_\_\_\_

3. –4x2+36 = \_\_\_\_\_\_\_\_\_\_\_\_ **4.** 56x8125⅓ y−8 • 257x−9 50y8 = \_\_\_\_\_\_\_\_\_\_\_\_\_

 x + 3

5. 4.5 X 10135  **÷** 8 X 10190 =\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 8√96 + 7√486 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ( in scientific notation) ( in simplified radical notation)

7. Given: 9x2  – 52 :Find x \_\_\_\_\_\_\_\_\_\_ When f(x) = 92 **8.** (5x +2) (8x2 – 3x –9)=\_\_\_\_\_\_\_\_\_

9. Is 6 ± √ 15 the solutions to y = 3x2 – 12x + 7 ? **Yes / No**

 3

10. What altitude (in feet) would you be in a hot air balloon after an hour and a half if you started with the altitude of 30 feetand if it increased at a rate of 5.3% per minute? \_\_\_\_\_\_\_\_\_\_\_\_

Given: f(x) = 2x 2 → g(x) = (2x) 2  **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:

 –5x – 10 ≤ – 20 and 3x + 1 > 19 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

14. 14 = – 9 – 8x x = \_\_\_\_\_\_\_\_\_\_\_ **15.** Graph: –3x – 8 < –10 + 2x

 5 9x + 2 (for #15) 7

16. Find zero(s): 3x2  –9x + 6 = 0 zero(s)=\_\_\_\_\_\_\_\_\_\_\_\_\_

17. f(7)= ? & zero(s) of the line through the points f(6)=12 and (1, 3). f(7)= \_\_\_\_\_\_ \_\_\_\_\_\_\_\_

 zero(s) (bonus)

18. Based on table (a.), write the equation and find shipping cost of 142.75 pounds .

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

Lbs. (x) Shipping Costs(y)

1.00 6.43

2.50 8.77

3.25 9.94

5.50 13.45

7.00 15.79

 (Slope-Intercept form) –2 –51 **Yes / No**

 –1 –2 **20.** Equation:

 2 –11 (standard form)

 Cost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3 –18

 (bonus) –5 –3 \_\_\_\_\_\_\_\_\_\_\_\_

**21.** Graph: x–2y< 3 and 1+3x≥y **22.** Solve the system of equations; **23.** Find the equation of :

 – y – 2 = 3(2x – 2) 3, 4.5, 6.75, 10.125, 15.1875,…

 4x – 9y = 22

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

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

24. Determine Function, and Domain & Range: **25.** Equation through point (– 2, 3)

 **○** Function? **Yes / No** ⊥ to 3x – 7y = 12

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

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

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

 (Inequality Notation) (bonus)

 26. Write the Equation for the scatterplot:

 **27.** Write in standard form: y= 2(x–2)2 +5

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

 (slope intercept form) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_