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

**Activity Sheet T3–1f** **Review 6**

1. 7(–4x+1) = –14(2x+3) x= \_\_\_\_\_\_\_\_\_ **2.** 2(3x2 – 6y + 6) – 8(–2x2 + 3y) – 9 =\_\_\_\_\_\_\_\_\_\_\_



3. –3x2+75 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ **4.** 95x88112y−4 = \_\_\_\_\_\_\_\_\_\_\_\_\_

x – 5 274x−3 330y−4

5. 9.51 X 108 +8.22 X 107 =\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 4√32 + 5√162 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( in scientific notation) ( in simplified radical notation)

7. Given: 5x2  – 31 :Find x \_\_\_\_\_\_\_\_\_\_ When f(x) = 14 **8.** (–4x +3) (2x2 – 8x –3)=\_\_\_\_\_\_\_\_\_

9. Is ( 6 ± √12 )/4 the solutions to y = 2x2 – 6x – 3 ? **Yes / No**

10. How much air would be in a hot air balloon after 60 minutes if you started with the volume of the balloon of 9000 ft3  and if it decreased at a rate of 2.7% per minute? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Given: y = 2.5x 2 → y = –2.5x 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:

–2x +1 ≤ – 5 and – 4x + 1 > 9 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

14. 13 = – 6 – 7x x = \_\_\_\_\_\_\_\_ **15.** Graph: –5x – 4 ≥ –20 + x

4 2x + 8 (for #15) 3

16. Find zero(s): 3x2  – 10x – 8 = 0 zero(s)=\_\_\_\_\_\_\_\_\_\_\_\_\_

17. f(4)= ? & zero(s) of the line through the points f(2)=9 and (4, –6). f(4)= \_\_\_\_\_\_ \_\_\_\_\_\_\_\_

zero(s) (bonus)

18. Based on table (a.), write the equation and find shipping cost of 10.2 pounds .

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

Lbs. (x) Shipping Costs(y)

2.00 free

3.50 4.50

5.00 9.00

6.25 12.75

7.85 17.55

(Slope-Intercept form) –2 48 **Yes / No**

1 6 **20.** Equation:

2 0 (standard form)

Cost: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –3 6

(bonus) 5 16 \_\_\_\_\_\_\_\_\_\_\_\_

**21.** Graph: x–3y = 9 + 2x **22.** Solve the system of equations; **23.** Find the equation of :

2y + 4 = 4(3x + 3) – 6, 12, –24, 48, –96, 192, …



2x – 7y = 14

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

24. Determine Function, and Domain & Range: **25.** Equation through point (– 5. 6)

**○** Function? **Yes / No** || to 6x – 2y = 10



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

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

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

(Inequality Notation) (bonus)

26. Write the Equation for the scatterplot:

**27.** Re-write in standard form: y= 4(x+1)2 –6

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

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