MCj04240580000[1]Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_

**Activity Sheet T3–1d** **Review 4**

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

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3. Factor and solve:

(x2+5x+6) **÷** (x + 2) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ **4.** 83x542y8 **•** 168x4 343y−5 = \_\_\_\_\_\_\_\_\_\_\_\_\_

5. 1 .25 X 10110 ÷3.5 X 10100 =\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 3√81 + 2√54 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

( in scientific notation) ( in simplified radical notation)

7. Given: x2 – 8x + 15 : Find x \_\_\_\_\_\_\_\_ When f(x) = 0 **8.** (x – 5) (3x2 + 6x) = \_\_\_\_\_\_\_\_\_\_\_

9. Jose spent $175 plus ‘x’ on tickets, the first event cost ‘x’ plus 15 dollars and the second event cost $20 less than 3 times first event. Find x. x = \_\_\_\_\_\_\_\_\_\_\_\_

10. Given: y = 3(x – 6)2 → y = 3(x + 1)2. Type: \_\_\_\_\_\_\_\_\_\_\_\_\_**11.** Effect: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(type of transformation) (left/right/up/down & #of spaces)

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

MCj04282970000[1] x ≥ – 3 and –4x > – 8 ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜ ⎜

13. 6 – 9x = –12x – 2 x = \_\_\_\_\_\_\_\_\_\_\_ **14.** Graph: x – 4 ≥ 5

3 12 (for #14) 2

15. Find ‘x’: 3x2 + 6 = 81 x=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. Equation and zero(s) of the line through the points (5,3) and (2,6)\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

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

17. Determine the equation of table (a.) AND write the domain and range.

(a.) Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Given:**

(x) (y)

0 24

1 43

2 62

3 81

4 100

(Standard form) 6 0 18. Function:?

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2 5

(Inequality Notation) (bonus) 5 1 **Yes / No**

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ –4 0

(Inequality notation) (bonus) 6 –4

**19.** Graph: 4x + y = –5 **20.** Solve the system of equations; **21.** Find the equation of the sequence:

 y + 5 = 3(x + 5) – 2 –.68, –.34, 0, .34, .68 ….

2x – 4y = 8

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

22. Write the Equation, Domain & Range: **23.** Equation through point (3,1)

Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(standard form) ⊥ to y= 3(x– 2) + 4

**24.** Domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

○ **25.** 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)

**28.** How much air would be in a balloon after 15 hours if you started with the volume of the balloon of 5200 in3  and if it leaked out at a rate of 3.4% per hour? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_