

Homework #7 Sections 4.1 – 4.6**Name:** _____

Show your work on this paper to receive credit.

Simplify:

1. $x^3 \cdot x^5 \cdot x^0$

2. $3x^2 \cdot 5x^4$

3. $-3xy^3(-4x^2y)(5x^7)$

4. $(3nm^2)^5$

5. $(2x^2y)^2(2xy)$

6. $(4x^3y^2)^3(5xy^5)^2$

For numbers 7 – 10, use the following polynomial: $5x^6 - 7 + \frac{1}{2}x - 4x^3$

7. Give the coefficient of each term.

8. Give the degree of each term

9. Give the degree of the polynomial

10. Write in descending order

Evaluate the following expressions when $x = -2$; $y = 3$; and $z = -1$

11. $\frac{4xyz}{y^2}$

12. $-2z^2 + 3z + x$

Combine the like terms:

13. $8x - x^2 + 3 - 4x^2 - 7x$

14. $(3y - 4) + (5y - 6)$

15. $(2x^2 - 4x + 3) - (x^2 - 5x + 1)$

16. $(3y^2 - 4) + (6y - 1) - (y^2 - y - 7)$

17. Subtract $x^2 + 4$ from $3x^2 - 7$

Multiply:

18. $(4x^3)(5x)$

19. $-2y^2(y^2 - 7y + 5)$

20. $(x + 3)(x - 3)$

21. $(y - 3)(y + 4)$

22. $(2x + 5)(x - 7)$

Solve the Equations:

23.) $2x - 3(3x - 4) = -5x - 8$

24.) $\frac{2}{3} + x = \frac{1}{5}x - \frac{2}{5}$

25.) $5y - 7 = 2y - (y + 7)$

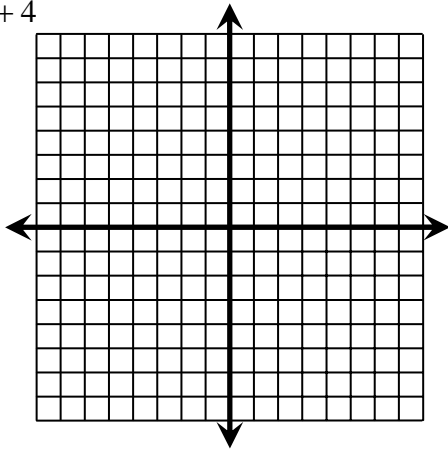
For each equation; a set up an equation b) solve the equation c) state the results.

26.) Lindsay gets an \$8 bonus for every warranty plan she sells and a \$5 bonus for each person she convinces to sign up for a credit card. If her bonus check was \$83 for 13 bonus transactions how many of each did she sell?

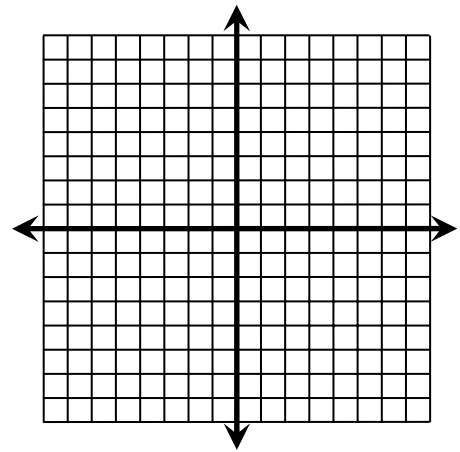
27.) John spent \$236.94 on a rental car before sales tax was added. He was charged a drop of fee of \$39.00 and a daily fee of \$32.99. How many days did he have the car?

Graph the equations. (State the x and y intercepts when applicable.)

28.) $y = -\frac{1}{2}x + 4$



29.) $x = -6$



30.) $2x + 3y = -4$

