

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

## Ch. 8 Review Sheet

**Multiply each of the following.**

1.  $3(2x - 5)$

2.  $3x(4x^3 + 7x)$

3.  $(w+5)(w-2)$

4.  $(5x+2)^2$

5.  $(3x+4)(3x-4)$

6.  $(3x-2)(2x^2 - 4x - 3)$

**Factor each of the following.**

7.  $x^2 + x - 12$

8.  $y^2 - 9$

9.  $m^2 + 4m - 32$

10.  $25a^2 - 16$

11.  $3x^2 - 11x - 4$

12.  $9y^2 - 24y + 16$

13.  $14x^2 - 18x + 4$

14.  $2y^3 + 2y^2 - 24y$

15.  $a^2 + 5a - 50$

16.  $12x^3y^4z^2 - 16x^2yz^3 + 20xy^4z^4$

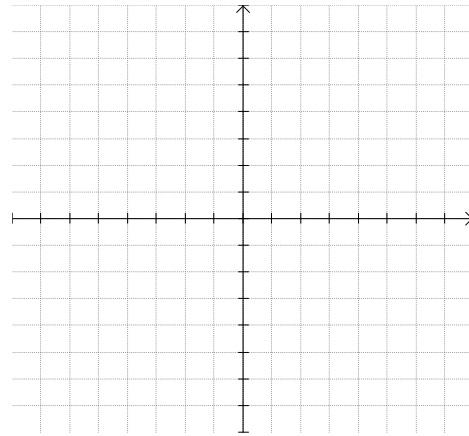
17.  $3x^4 - 48y^4$

## REVIEW QUESTIONS

18. Solve the equation for  $x$ . Show all work.  $5(3x-2)-10=11x+15$

19. Simplify  $\frac{18x^3y^4}{20x^2y^7}$

20. Solve and graph the system:  
 $3x-2y > 6$   
 $y > \frac{-2}{3}x+1$



21. Solve the system:  
 $2x+3y=11$   
 $3x+2y=14$

22. Write an equation of the line perpendicular to  $y = \frac{2}{3}x+1$  that contains the point  $(4, -2)$ .