Chapter 8 Review Worksheet

Name: _____

Find the degree of each monomial.

1. $13f^2g^4$
2. $-2ab$
3. $7m^5n$

Name each polynomial based on its degree AND number of terms.

4. $9z^2$
5. $2x + 1$
6. $x^3 + 3x^2 + 7x$

7. The perimeter of a triangle is $10x - 3$. Two sides have the following lengths: $2x$ and $5x - 4$. What is the length of the third side?

Simplify each sum or difference.

8. $10f^5 + 8f^5$
9. $27j^3k - 28j^3k$
10. $(8h - 3h) + (4h^2 + 2h)$

Simplify each product.

11. $5x(x + 8)$
12. $-2z^2(z - 10)$
13. $3x(7x^2 - 5x + 4)$
14. $(x - 3)(4x - 5)$
15. $(2x + 5)(x + 6)$
16. $(3x - 7)(4x + 9)$
17. $(x + 5)(x^2 - 3x + 6)$
18. $(4c + 3)(2c^2 - 6c - 1)$
19. $(5s + 6)^2$

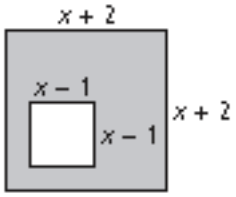
20. $(h+4)(h-4)$

21. $(4x-10)^2$

22. $(6k^2+4k)(6k^2-4k)$

Write a simplified expression for the area of the shaded region.

23.



Factor each expression completely.

24. $9x-6$

25. $14n^3-2n^2+8n$

26. $18b^2c^3+24bc^5$

27. $r^2+3r-10$

28. $g^2-4g-12$

29. $m^2+12m+35$

30. $2d^2-23d+11$

31. $6h^2+21h+15$

32. $18n^3-12n^2+21n-14$

33. $a^2-22a+121$

34. x^2-225

35. $16c^2-25$

36. The area of a rectangular garden is $5x^2+43x+24$. The width of the tray is $x+8$. What is the length?