

Name: _____ Date: _____

Unit 4 Review**Simplify**

1. $(3a^2b^4)^3(4a^{-4}b)$

2. $\left(\frac{k^{-1}m^2}{4k^4m}\right)^{-2}$

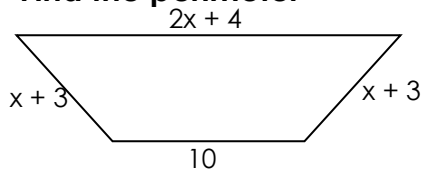
Multiply

3. $7x^2(8x^4 + 2)$

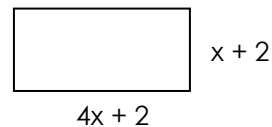
4. $(x+6)^2$

5. $(5x-6)(x^2+9x-3)$

6. Find the perimeter



7. Find the area.

**Factor each of the following expressions. Remember to GCF first!**

8. $6x^3 + 15x^2$

9. $8x^4y^5 + 12x^3y^3 - 16x^2y^6$

10. $x^2 + 9x + 18$

11. $2x^2 + 14x - 88$

12. $x^2 - 81$

13. $5x^2 + 26x + 24$

14. $6x^2 - 18x - 24$

15. $9x^2 - 60x + 100$

16. $81 - 4x^2$

17. $x^4 - 16$

Solve for the given variable.

18. $x^2 - 24 = 5x$

19. $4x^2 - 10x = -6$

20. $4x^2 = 15x - 11$

21. $x^2 - 16 = 0$

22. $9x^2 - 12x = 0$

23. $3x^2 + 21 = -16x$

24. The area of a rectangle is $(8x^2 + 8x + 2)$ cm². The width is $(2x + 1)$ cm. What is the length of the **rectangle**?

Additional Topics:

- Function Notation
 - Linear Characteristics from a graph
(literally look at the old tests – we're going to ask the SAME questions with a new line)
-