

## Chapter 5

Evaluate.

1.  $(-2)^3$

1. \_\_\_\_\_

2.  $-2^4$

2. \_\_\_\_\_

3.  $4^{-2}$

3. \_\_\_\_\_

Simplify. Use only positive exponents in the final answer.

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

4. \_\_\_\_\_

5.  $(-4x^5)(5x^6)$

5. \_\_\_\_\_

6.  $\frac{a^6b^5}{a^3b^2}$

6. \_\_\_\_\_

7.  $(3x^4y^3)^0$

7. \_\_\_\_\_

8.  $\left(-\frac{1}{3}\right)^{-2}$

8. \_\_\_\_\_

9.  $\left(\frac{x^{-2}y}{x^{-3}y^5}\right)^{-2}$

9. \_\_\_\_\_

10. Express in scientific notation. 5,723,000

10. \_\_\_\_\_

11. Express in standard form.  $7.94 \times 10^{-6}$

11. \_\_\_\_\_

12. Perform the indicated operation and express the answer in scientific notation.

$$(2.4 \times 10^3) \times (3.8 \times 10^5)$$

12. \_\_\_\_\_

13. Find the degree of the following polynomial.

$$4x^5 + 2x^3 - 3x^2 + 4x - 6$$

13. \_\_\_\_\_

Perform the indicated operation.

14.  $(3x^2 - 7x - 9) + (3x^2 - 9x)$

14. \_\_\_\_\_

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Instructor:

Date:  
Section:

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15.  $(3x^2 - 7x - 5) + (2x^2 - 8x - 4)$  15. \_\_\_\_\_

16.  $(5x^2 - 3x - 5) - (7x^2 - 4x + 4)$  16. \_\_\_\_\_

17.  $(4a^2 - 3ab + 5b^2) - (3a^2 - 3ab + 4b^2)$  17. \_\_\_\_\_

18.  $\left(-\frac{2}{3}x^5\right)\left(\frac{5}{6}x^8\right)$  18. \_\_\_\_\_

19.  $-2x^3(3x^4 - 2x^2 + 4)$  19. \_\_\_\_\_

20.  $(3x - 5)(2x + 3)$  20. \_\_\_\_\_

21.  $(3x + 2)^2$  21. \_\_\_\_\_

22.  $(2x - 5)(2x + 5)$  22. \_\_\_\_\_

23.  $\frac{4x^5 - 16x^3 - 8x^2}{4x^2}$  23. \_\_\_\_\_

24.  $\frac{x^2 + 5x - 24}{x + 8}$  24. \_\_\_\_\_

25. The area of a rectangle is  $x^2 - x - 6$ . Find the length if the width is  $x - 3$ . 25. \_\_\_\_\_