

Simplify the following exponents.

1. $4^{10} \cdot 4^3$

2. $(3x^4)^0 + 5$

3. $\frac{40n^6}{4n^2}$

4. $(m^4)^7$

5. $\frac{(x^4)^3}{x^8}$

6. $(-2x^5)(-5x^4)$

7. $(-3m^3n^5)^2$

8. 6^{-4}

9. $\frac{-6}{36x^{-3}}$

10. $\left(\frac{3}{7}\right)^{-2}$

11. $(2.4 \times 10^9)(3.1 \times 10^5)$

12. $\frac{(6.6 \times 10^9)}{(2.4 \times 10^8)}$

13. $2x^2y^{-3}$

14. $\left(\frac{6x^{-3}}{z^4y^{-2}}\right)^2$

Add or Subtract the polynomials

19. $(2x^2 - 5x + 1) + 3(x^2 - x - 4)$

20. $(12x^2 + 8x - 3) - 2(11x^2 - x + 5)$

21. $2x(8x^2 + x + 1) - 4(3x^2 - x + 2)$

Multiply the polynomials

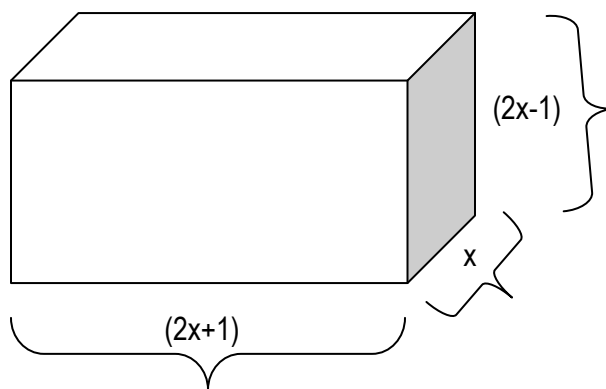
22. $3x^2(x^2 - 4x + 1)$

23. $(2x + 3)(x + 4)$

24. $(x + 3)(2x^2 + 5x + 2)$

25. $(2x + 1)^3$

26. The volume of a rectangular prism is given by $V = l \cdot w \cdot h$. Write the expression that represents the volume of the given figure.



$V =$ _____