

Exponent and Polynomials Test Name _____

Simplify:

$$1. (-4x^2y)(3x^2y^2)$$

$$2. (x^4y^3)(8x^2)$$

$$3. \frac{39x^5y^2}{13x^4y^2}$$

$$4. \frac{-6x^7y^4}{9x^3yz}$$

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

$$6. (2x^3y)^0(4x^3y)^2$$

$$7. \frac{(-3x^5y^4)(2x^2y)}{2x^3y^2}$$

$$8. (4x^3y^4)^2(-2x^3)^2$$

$$9. \frac{5x^{-3}y^0z^4}{15m^4n^{-2}}$$

$$10. \left(\frac{2x^4y}{z^2}\right)^{-1}$$

$$11. \frac{9x^2y^3}{3x^4y}$$

$$12. \frac{10x^{-3}y^4}{30x^2y^{-2}}$$

$$13. \left(\frac{2x^2y}{4x^4y^3} \right)^{-2}$$

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

$$15. \left(\frac{9x^4y^2}{x^2y^3} \right)^{-2}$$

$$16. (-3x^4y)(2x^2y^3)(4x^4)$$

$$17. -3x^3y(2x^2y^3 + 4xy^2 - 3y^4)$$

$$18. -xy^2(3xy^3 - x^4y^2 + 3x^2y^3)$$

$$19. (x-7)(x+7)$$

$$20. (2x+4)(3x-5)$$

$$21. (x-5)(2x^2+3x-10)$$

Simplify:

$$22. \frac{27x^8y^6 - 18x^5y^5 + 36x^7y^3}{9x^4y^3}$$

$$23. \frac{45x^3y + 60x^2y^4 - 25x^4y^2}{5x^2y}$$

Find the GCF:

$$24. 4x^5y^5 + 12x^3y - 20x^2y^3$$

$$25. 15x^4y^3 - 27x^3y^6 + 12x^5$$

Factor by GCF:

$$26. 8x^4y^4 - 16x^3y^5 + 32xy^7$$

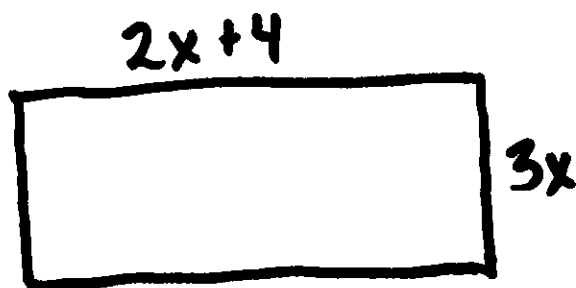
$$27. 39x^3y^2z + 13x^4yz^2 - 26x^2y^5z^3$$

$$28. (2x^2 + 3x - 5) + (3x^2 + 2x - 12)$$

$$29. (3x^3 + 2x - 3) + (2x^2 - x + 7)$$

$$30. (x^2 - 3x + 4) - (2x^2 - 3x + 8)$$

$$31. (2x + 3) - (4x - 7) + (6x - 1)$$



32. Perimeter =

33. Area =

Solve for x :

$$34. 3x + 10 = 25$$

$$35. 5 - 2x = -25$$

$$36. 4(2x - 3) = 8$$

$$37. \frac{2}{3}x + 2 = 12$$

38. Tom makes \$200 a week and an 8% commission on his sales. Write a function to represent his earnings.