

- (a) State the degree of each variable in the monomial.
(b) State the degree of the monomial.

$$14. -5xy^4z^3$$

$$15. -10xyz$$

$$16. -2u^4v^6w^2$$

Simplify.

$$17. x^2 \cdot x^5$$

$$18. (-3s)(7s^2)$$

$$19. (-x^2y^3)(3xy^2)(-2x^3y)$$

$$20. -(2k^5)^6$$

$$21. (3t^3)^2$$

$$22. (2x^2y)^5$$

$$23. (2x)^2(2x)^4$$

$$24. (3a^2b)^3(2a^3b)$$

Divide the monomials (simplify the quotients)

$$25. \frac{3x^2r}{9xr^2}$$

$$26. \frac{(5a^2)^3}{(5a^3)^2}$$

$$27. \frac{12y^2}{4xy}$$

$$28. \frac{xy^2z^3}{x^3y^2z}$$

Directions: Simplify

$$29. \frac{5^{-2}}{5^4}$$

$$30. \left(\frac{3^0 \cdot 2}{2^{-2}}\right)^{-3}$$

$$31. 8^{-2}$$

$$32. x^{-1}y^2$$

$$33. (3x^{-2})^3$$

$$34. \frac{y^3}{y^{-5}}$$

Multiply

$$35. \quad \frac{1}{2}x^2(6x^2 - 9xy - 3y^2)$$

$$36. \quad pq^2(p^2 - 3pq - 4q^2)$$

$$37. \quad (5b - 5)(5b - 3)$$

$$38. \quad (-7x - y)(-3x - 2y)$$

$$39. \quad (-7x + 6y)(8x^2 + 3xy + 2y^2)$$