

Simplify the polynomials.

36. $7y + 2y + 3y + 5y$

37. $3x + 5x + 2x + 4x$

38. $9x + 3y + 2x$

39. $3x^2 + 2x + 3x + 5 + 4$

40. $3x + y$

41. $8y^2 + 3y + 5 + 2y + y^2 + 6$

42. $7x^2y^2 + 6xy + 5x + 4y + 6xy + 4y$

43. $5x^2 + 4xy + 6y^2 + 3y^2 + 2y^2$

44. $2x^2 + 3x^2 + xy + y^2$

45. $16m + 3m + 12n + 5n$

Sharpening Skills

Follow the directions.

1. Write the coefficient of 6 in $6x^2y$. _____
2. Write the numerical coefficient in $6x^2y$. _____
3. Write x^3 without using an exponent. _____
4. Simplify $4x^2 + 3xy + y^2 + 2x^2 + y^2$. _____
5. Write the number of terms in a monomial. _____
6. Write 9 days + 3 hours as an algebraic expression. _____
7. Write the factors of $3xy$. _____
8. Write an example of a trinomial algebraic expression. _____
9. Write a like term for $6x^2$. _____
10. Write an unlike term for $6x^2$. _____

Write using exponents and solve the numerical coefficient.

11. $3xxyyy$

12. $2 \cdot 2 \cdot 2 \cdot b \cdot b \cdot c$

13. $4 \cdot 4 \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y$

14. $5 \cdot 5 \cdot x \cdot y \cdot y$

15. $a \cdot b \cdot b \cdot c \cdot d \cdot d$

16. $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot a \cdot b$

Multiply. ~~_____~~

1. $(3x^2)(6x^3)$

2. $(5a^2b)(3ab^2)$

3. $(7mn^2)(6m^3)$

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

5. $(4m^2n)(5m)(2n^2)$

6. $(.3x^2)(6xy)(2xy^2)$

7. $(3ax)(4a^2b)(2x^2b)$

8. $(12mnp)(4m^2p^2)$

9. $(5t^2)(3t)(6t^3)$

Multiply these monomials. ~~_____~~

10. $(2a^2)(3a)$

11. $(6x)(5y)$

12. $(4a)(3b)(6c)$

13. $(5a^3)(2a)(4a)$

14. $(5xy^2)(x^2y^2)$

15. $(a^2bc^2)(5abc)$

16. $(2x^2)(5y^2)(3xy)$

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

18. $(.5x)(.3y)$

19. $(5m)(\frac{1}{5}m^2)$

20. $(x^3)(y^2)(x^2)(xy)$

21. $(2mn)(3mn)(2mn)$

Sharpening Skills

Multiply or divide.

1. $y^6 \div y^2$

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

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

4. $(7m^2)(6m)(3mn)$

5. $x^5 \div x^9$

6. $(3b^2c)(2bc^2)(4bc)$

7. $a^4 \div a$

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

9. $(5mn^2)(4m^3n)(7mn)$