

Example 1
p. 401

Determine whether each expression is a monomial. Write *yes* or *no*. Explain your reasoning.

21. 122

22. $3a^4$

23. $2c + 2$

24. $\frac{-2g}{4h}$

25. $\frac{5k}{10}$

26. $6m + 3n$

Examples 2 and 3
pp. 402–403

Simplify each expression.

27. $(q^2)(2q^4)$

28. $(-2u^2)(6u^6)$

29. $(9w^2x^8)(w^6x^4)$

30. $(y^6z^9)(6y^4z^2)$

31. $(b^8c^6d^5)(7b^6c^2d)$

32. $(14fg^2h^2)(-3f^4g^2h^2)$

33. $(j^5k^7)^4$

34. $(n^3p)^4$

35. $[(2^2)^2]^2$

36. $[(3^2)^2]^4$

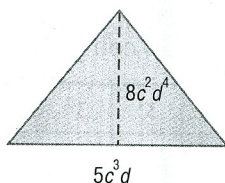
37. $[(4r^2t)^3]^2$

38. $[(-2xy^2)^3]^2$

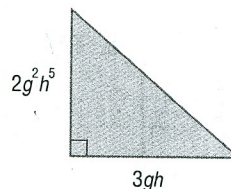
Example 4
p. 403

GEOMETRY Express the area of each triangle as a monomial.

39.



40.



Example 5
p. 404

Simplify each expression.

41. $(2a^3)^4(a^3)^3$

42. $(c^3)^2(-3c^5)^2$

43. $(2gh^4)^3[(-2g^4h)^3]^2$

44. $(5k^2m)^3[(4km^4)^2]^2$

45. $(p^5r^2)^4(-7p^3r^4)^2(6pr^3)$

46. $(5x^2y)^2(2xy^3z)^3(4xyz)$

47. $(5a^2b^3c^4)(6a^3b^4c^2)$

48. $(10xy^5z^3)(3x^4y^6z^3)$

49. $(0.5x^3)^2$

50. $(0.4h^5)^3$

51. $(-\frac{3}{4}c)^3$

52. $(\frac{4}{5}a^2)^2$

53. $(8y^3)(-3x^2y^2)(\frac{3}{8}xy^4)$

54. $(\frac{4}{7}m)^2(49m)(17p)(\frac{1}{34}p^5)$

55. $(-3r^3w^4)^3(2rw)^2(-3r^2)^3(4rw^2)^3(2r^2w^3)^4$

56. $(3ab^2c)^2(-2a^2b^4)^2(a^4c^2)^3(a^2b^4c^5)^2(2a^3b^2c^4)^3$

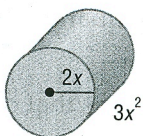
57. **FINANCIAL LITERACY** Cleavon has money in an account that earns 3% simple interest. The formula for computing simple interest is $I = Prt$, where I is the interest earned, P represents the principal that he put into the account, r is the interest rate (in decimal form), and t represents time in years.

a. Cleavon makes a deposit of $\$2c$ and leaves it for 2 years. Write a monomial that represents the interest earned.

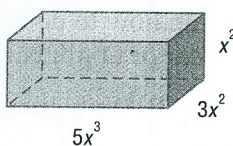
b. If c represents a birthday gift of $\$250$, how much will Cleavon have in this account after 2 years?

GEOMETRY Express the volume of each solid as a monomial.

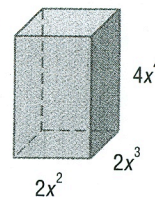
58.



59.



60.



Real-World Link

84% of teens have some money saved. The average teen has saved $\$1044$.

Source: Charles Schwab Teens & Money Survey