

Algebra 1B Homework Check (7-3)

(Please attach homework to this sheet and fill out the questions below.)

Pg. 464: 23-40, 55-64

Simplify.

23. $(2^3)^3$

24. $(3^6)^0$

25. $(x^2)^{-1}$

26. $(b^4)^6 \cdot b$

27. $b \cdot (a^3)^4 \cdot (b^{-2})^3$

28. $(x^4)^2 \cdot (x^{-1})^{-4}$

29. $(3x)^3$

30. $(5w^8)^2$

31. $(p^4q^2)^7$

32. $(-4x^3)^4$

33. $-(4x^3)^4$

34. $(x^3y^4)^3 \cdot (xy^3)^{-2}$

Find the missing exponent in each expression.

35. $a^{\square} a^4 = a^{10}$

36. $(a^{\square})^4 = a^{12}$

37. $(a^2b^{\square})^4 = a^8b^{12}$

38. $(a^3b^6)^{\square} = \frac{1}{a^9b^{18}}$

39. $(b^2)^{-4} = \frac{1}{b^{\square}}$

40. $a^{\square} \cdot a^6 = a^6$

55. **/// ERROR ANALYSIS ///** Explain the error in each simplification below. What is the correct answer in each case?

a. $x^2 \cdot x^4 = x^8$

b. $(x^4)^5 = x^9$

c. $(x^2)^3 = x^{2^3} = x^8$

Name: _____

Class: _____

Hour: _____

Simplify.

56. $(-3x^2)(5x^{-3})$

57. $(a^4b)(a^3b^{-6})$

58. $(6w^5)(2v^2)(w^6)$

59. $(3m^7)(m^2n)(5m^3n^8)$

60. $(b^2)^{-2}(b^4)^5$

61. $(3st)^2t^5$

62. $(2^2)^2(x^5y)^3$

63. $(-t)(-t)^2(-t^4)$

64. $(2m^2)(4m^4)(8n)^2$