

Unit 3 Review #2

Simplify.

63. $m^2 \times m^5$

64. $y^{-3} \times y^{-2}$

65. $t^7 \div t^4$

66. $m^{-7} \div m^{-2}$

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

68. $(y^3)^0$

69. $(x^{-2} y^3)^{-2}$

70. $\left(\frac{m^3}{n^2}\right)^4$

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

Simplify.

72. $(-2x^2 y^3)(-5x^3 y^4)$

73. $(-18a^3 b^2) \div (-2a^2 b)$

74. $3m^{-2} \times 4m^6$

75. $10x^{-2} \div (-2x^{-3})$

76. $(-2a^5 b^3)^2$

77. $(-3m^{-3} n^{-1})^{-3}$

78. $\left(\frac{3m^2}{2n^3}\right)^3$

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

80. $\frac{(3x^3 y)(6xy^4)}{-9xy^2}$

81. $\frac{3ab^4}{2a^3 b^2} \times \frac{12a^5 b}{15a^4 b}$

82. $\frac{(-2s^{-2} t)(5s^{-3} t^2)}{4s^2 t^{-3}}$

83. $\left(\frac{6a^{-2} b^{-3}}{2a^2 b^{-1}}\right)^{-2}$

1.8 *Write in radical form.*

84. $6^{\frac{1}{2}}$

85. $5^{-\frac{1}{2}}$

86. $7^{\frac{3}{5}}$

87. $10^{-\frac{4}{3}}$

Write using exponents.

88. $\sqrt[3]{-8}$

89. $(\sqrt[3]{m})^5$

90. $\sqrt[3]{x^2}$

91. $\sqrt[5]{4a^4}$

Evaluate.

92. $25^{\frac{1}{2}}$

93. $\left(\frac{1}{27}\right)^{\frac{1}{3}}$

94. $49^{-\frac{1}{2}}$

95. $1^{-\frac{1}{4}}$

96. $0.09^{0.5}$

97. $(-8)^{-\frac{1}{3}}$

98. $0.008^{-\frac{1}{3}}$

99. $27^{\frac{2}{3}}$

100. $-16^{-\frac{3}{4}}$

101. $\left(\frac{81}{16}\right)^{\frac{5}{4}}$

102. $\left(\frac{1}{9}\right)^{2.5}$

103. $\left(\frac{27}{125}\right)^{-\frac{2}{3}}$

104. $(-32)^{\frac{4}{5}}$

105. $(-8^{-1})^{-\frac{1}{3}}$

106. $\sqrt{\sqrt{16}}$