

Algebra Chapter 8 Review

Pg. 452 #74-77

Pg. 459 #91-98

Pg. 473 #1-4

Pg. 481 #47

Pg. 424 #10, 12, 15

p 452

74. $b c^{-6} \cdot b = \frac{b^2}{c^6}$

75. $(a^2 b^3)(a^6) = a^8 b^3$

76. $\frac{9m^3(6m^2n^4)}{54m^5n^4}$

77. $\frac{2t(-2t^4)}{-4t^5}$

p 459

91. $\frac{(3y^2)^3}{27y^6}$

92. $\frac{(2m^{-7})^3}{m^{21}}$

93. $\frac{(r^2t^{-5})^{-4}}{r^8}$

94. $\frac{2(3s^{-2})^{-3}}{27}$

95. $\frac{(2^3c^2)^{-1}}{8c^2}$

96. $\frac{(-3)^2(-r^3)^2}{9r^6}$

97. $\frac{(7^0n^{-3})^2(n^5)^2}{n^4}$

98. $(7^2y^{12})^0 = 1$

p 473

1. $\left(\frac{3^2}{3^{-1}}\right)^4$

2. $\left(\frac{x^2}{y^3}\right)^{-5}$

3. $\left(\frac{10m^{-3}}{25n^{-6}}\right)^2$

4. $\left(\frac{6^2t^{-3}}{6^2r^0t^2}\right)^2$

3^{12}

$\frac{y^{15}}{x^{10}}$

$\frac{4n^{12}}{25m^6}$

$\frac{1}{t^{10}}$

531441

p 481

47. (a) $y = 6,284,000 \cdot (1.01)^x$

(b) $y = 6,284,000 \cdot (1.01)^{20} \approx 7,667,674$ people

p424

10. $y = -2x - 1$

$$y = 3x - 16$$

$$(3, -7)$$

12. $y + 6 = 2x$

$$4x - 10y = 4$$

$$\left(\frac{7}{2}, 1\right)$$

or $\left(3\frac{1}{2}, 1\right)$

15. $x + y = 10$

$$-x - 2y = -14$$

$$(6, 4)$$