

## Diff-Algebra Chapter 8 Review

Pg. 452 #74-77

Pg. 459 #91-98

Pg. 473 #1-4

Pg. 481 #47

Pg. 488 #26, 27

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.  $\frac{(r^2t^{-5})^{-4}}{t^{20}r^8}$

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

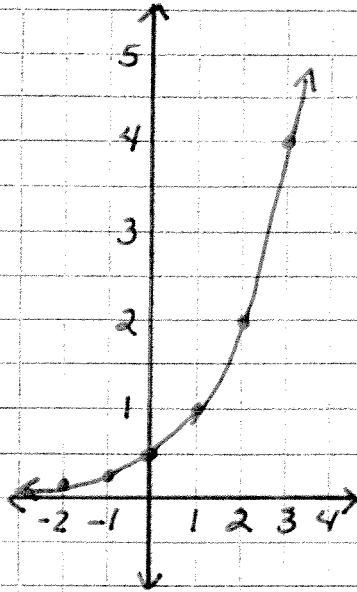
47. (a)  $y = 6,284,000 \cdot (1.01)^x$

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

p 488

26.  $y = \frac{1}{2} \cdot 2^x$

x	y
-2	$\frac{1}{8}$
-1	$\frac{1}{4}$
0	$\frac{1}{2}$
1	1
2	2
3	4



27.  $y = 2 \cdot \left(\frac{1}{2}\right)^x$

x	y
-2	8
-1	4
0	2
1	1
2	$\frac{1}{2}$

