

Math 2T Chap 7

Day 2

p. 483 #28, 30, 36a, 37a, b, 39

p. 490 #31, 33, 34

p. 495 #3.5, 19, 27, 31, 32, 56-58

(28)

$$y = 1219(1.12)^t$$

$$y = a(1+r)^t$$

(29)

$$A = P(1 + \frac{r}{n})^{nt}$$

$$A = 800(1 + \frac{.02}{365})^{365t}$$

(30)

$$y = a(1+r)^t$$

$$y = 450(1.06)^t$$

(36a)

$$A = 2500$$

Growth 1.5

90 502

(37a)

$$y = 2200(1 + \frac{.03}{4})^{4 \cdot 4} = \$2479.38$$

$$(b) y = 2200(1 + \frac{.0225}{12})^{12 \cdot 4} = \$2406.98$$

(39)

$$P = 494.29(1.03)^t$$

$$t = 10$$

$$P = 664.284$$

p. 490

(31)

$$y = 200(1 - .25)^t$$

$$t = 3 \quad 84.38$$

(b)

$$100 = 200(.75)^t$$

$$.5 = .75^t$$

about 2.5 years

(33)

$$10,000 = 24000(.845)^t$$

$$.4167 = .845^t$$

about 5 years

p495 #3-5, 19, 27, 31, 32, 56-58

(3) e^7 (4) e^4 (5) $8e^{9x}$ (19) $e^3 = 20.086$

(27) $2e^{-.3} = 1.482$ (31) decay (32) growth

(56) $y = 738e^{-.345t}$ @ $t=10$

$23,247$ bugs

(57) $A = 2000e^{(.04 \cdot 5)} = \2442.81

(58) $A = 800e^{(.0265 \cdot 12.5)} = \1114.17