Monday

In class

Sec 3.2 odds (#29, 31, 33, 43)

29) First write fnc. $P(t) = 736{,}000(1.0149)^t$

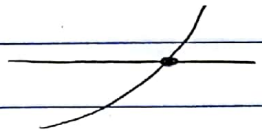
t = # of yrs after 2000

$y_2 = 1\,000\,000$

Zoom 6

Zoom fit

Adjust Incr X max 30 Incr y max 1 500 000



$x = 20.725$ round up

In year **2021**

31) $P(t) = 6250(1.0275)^t$

t = # of yrs after 1890

a) $P(25) = 6250(1.0275)^{25} =$ **12,315** ← 1915

$P(50) = 6250(1.0275)^{50} =$ **24,265** ← 1940

1915 is 25 yrs after 1890

1940 is 50 yrs after 1890

b) $y_2 = 50\,000$

Zoom 6

Zoom fit

Incr X max 100 y max 60 000

$x = 76.65$ 77

1967

33) a) $f(t) = 6.6\left(\frac{1}{2}\right)^{t/14}$ ← # of half lives

b) $y_2 = 1$

Zoom 6

$[-10, 40]$ by $[-2, 10]$

b) after 38.11 days

	L1	L2
43)	50	
	60	
	70	
1950 / 2000	80	
	90	
	100	

stat calc exp reg.

$y = 1149.619\,(1.012132734)^{x}$

$f(111) \approx 1149.619\,(1.0121\ldots)^{111}$

≈ 4384.431 thousand

4,384,431

4834.431
−3820

overestimated by
564,431