6

HW: Exponential Growth 4/4
green text p. 392 #12-15

foldable

1) $A = P(1+r)^x$
$A = 9.75(1+0.15)^5$
$A = \$19.61$

2.) $A = P(1+r)^x$
$A = 2000(1-0.20)^4$
$A = 2000(0.80)^4$
$A = \$819.20$

3.)

mazda maita	Ford mustang
$y_1 = 19{,}000(1-0.10)^x$	$y_2 = 11{,}500(1+0.06)^x$

type y_1 & y_2 in the calculator, go to 2nd calc (above Trace button) ... pick intersect ... press enter 3 times.

intersection (3.06846..., $13751.44)
# of years cost

answer:
Around 3 years both cars will have the same value.

p. 392 green text

12.) $A = P(1+r)^n$
$= 25{,}000(1+0.20)^7$
$A = 89{,}579.52$
population ... no decimals
$89,600

13.) $A = P(1+r)^n$

$= 5000(1+0.06)^8$

$A = \$7969.24$

14.) $A = P(1+r)^n$

$= 50000(1-0.05)^{10}$

$A = \$29,936.85$

15.) $y = 1(1+0.20)^{10}$

$y = 6.19$

↓

6 miles