

The equation you should be using is

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

Starting Value      Percent Rate      ← time

ex 11) If you start with \$100  
and lose 8% per year  
the formula would be

$$y = 100(1 + -0.08)^t$$
$$= 100(.92)^t$$

Then for 20 years

$$= 100(.92)^{20}$$

Plug in on calculator  $.92 \wedge 20$   
then times 100

ex 13) use same formula

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

however use 1 for b

ex 14) use half-life formula

$$y = b \left(\frac{1}{2}\right)^{t/\text{rate}}$$

so  $15000/5770$

$$y = 1 \left(\frac{1}{2}\right)^{t/5770}$$