Simple Interest

Ex 1: $1000 is invested @ 10% simple interest for 5 years.

Compound Interest

Ex 2: $1000 is invested @ 10%, compounded annually for 5 years.

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

Ex 3: Fv if $3200 is invested for 7 yrs @ 9%.

Ex 4: Fv if $5000 is invested for 10yrs @ 6%.

Ex 5: P if the FV after 11 yrs is $10k in an investment that earned 8%, compounded semiannually.

Ex 6: Euler invests $1 for 1 year @ 100% interest, compounded n times a year.

Formula: $A = Pe^{rt}$

Ex 7: Fv if $1000 is invested @ 10% compounded cont. for 5 yrs.

Ex 7: What is the doubling time for an investment that grows @ 7%, compounded cont.

Ex 1: Euler invests $1 for 1 year at 100%, compounded N times each year.

Formula: $S = Pe^{rt}$

Ex 2: Find FV if $1000 is invested @ 10%, compounded cont for 5 years.

Ex 3: What is the doubling time for an investment that grows @ 7%, comp. cont.

Ex 4: If $\{a_n\}$ is arithmetic, find a_n if $a_{11} = 72$ and $a_{37} = -2$.

Ex 4: Fun problem. Find the quadratic thru $(-3, 41)$, $(1, 13)$, and $(2, 16)$

Geometric Sequences

Ex 5: $1, 3, 9, \ldots$ Find the n^{th} term.

$4, 2, 1, \ldots$

$3, -6, 12, \ldots$