

ALG 2 1/21

How much is \$1000 deposit  
into savings account worth  
after 1 yr? Annual interest  
rate 5%, compounded  
monthly

$$\begin{aligned} A &= P \left( 1 + \frac{r}{n} \right)^{nt} \\ &= 1000 \left( 1 + \frac{.05}{12} \right)^{12 \cdot 1} \\ &= 1051.60 \end{aligned}$$

# For compound interest (no payments)

$N$  = number of years ( $t$ )

$I\%$  = Annual interest rate ( $r$ )

$PV$  = present value (principle)

$PMT$  = payment (leave at 0 for

$FV$  = future value <sup>compound interest only problems</sup>  
(annuity)

$p/y$  = payments/year (leave = 1)

$c/y$  = compounds per year ( $n$ )

# Payments

$N =$  number of payments

$P/y = 12$  (monthly)