

# Present Value of an Annuity

$$PV = \frac{R[1 - (1 + i)^{-n}]}{i}$$

$R$  = regular payment

$i$  = rate of interest

number of times its compounded annually

$n$  = number of times its compounded annually

$t$  = the # of years

$$R = \frac{PVi}{1 - (1+i)^{-n}}$$

Jane borrow \$9500 at an interest rate of 6.9% compounded monthly for 3 years. What is the regular payment?

$$PV = \$9500$$

$$i = \frac{r}{n} = \frac{0.069}{12} = \underline{0.00575}$$

$$n = 12$$

$$t = 3$$

The bank will extend a loan to me at 4% interest compounded monthly over 7 yrs. I have \$5000 for a down payment. The tax is 13% and the list price is \$41,998. What is my regular payment?