

FV - Future Value

$FV = PV \left(1 + \frac{i}{n}\right)^{nt}$

What do the variables stand for?

FV	PV	i	n	t
Future Value	Present Value	int	# pay	How many yrs

What are the different compounding periods?

Annual	Semi-annual	Quarterly	Monthly	Weekly	Daily
1	2	4	12	52	365

Determining Loan Payments:

1. Set up future value equation to determine the amount of your loan
2. Determine total amount of your loan
3. Divide by total number of payments (n * t)

Monthly payments: $FV/n*t$

Handwritten calculation:

$$\begin{array}{r} 137,396 \\ - 23,956 \\ \hline \$ 113,440 \end{array}$$

3. Assume you go to college and the current tuition (w/room and board) is \$18,489 per year. Your loan rate 6.21% over 10 years compounded monthly.

A. What will total amount you will pay back?

Handwritten: 137,396

B. What will be your monthly payments?

Handwritten: 1144.97

C. What will be the total interest that you will pay back?

Handwritten calculation:

$$FV = 18,489 \left(1 + \frac{0.0621}{12}\right)^{12(10)}$$

$$= 137,396 / 120$$

$$= \$ 1144.97$$