

1. Glenn borrowed \$8500 at 6.2% interest, compounded semi-annually. He agreed to repay the loan in a single payment at the end of the term, in 1.5 years.

- a) What is the total paid?
- b) What is the interest paid?
- c) Suppose that the interest compounding was weekly instead of semi-annually. How much is saved in total?
- d) Glenn decided to make regular monthly loan payments instead. If the interest is calculated semi-annually and Glenn wanted the loan to be paid off in 2 years, what would the monthly payment be?

N =	FV =
I =	P/Y =
PV =	C/Y =
PMT =	END

2. Pia borrowed \$12 000 to pay for college tuition. The interest was compounded quarterly at 5%, and Pia repaid the loan with monthly payments of \$450. How long did it take Pia to repay the loan?

N =	FV =
I =	P/Y =
PV =	C/Y =
PMT =	END

3. A family takes out a mortgage for \$100 000 amortized over 20 years. The mortgage is set for a five-year term at 5.8% p.a. compounded semi-annually. Answer the following questions:

a) What is the monthly payment?

N =	FV =
I =	P/Y =
PV =	C/Y =
PMT =	END

b) What is the total paid?

c) What is the interest paid?

4. Kevin used his credit card to pay \$2544 for a holiday. The interest rate for the credit card is 18.75%, compounded daily. Kevin plans to make monthly payments of \$200.

a) When will Kevin have paid off the balance in full?

N = FV =
 I = P/Y =
 PV = C/Y =
 PMT = END

b) How much interest will he have paid?

5. Jason and Traci need to furnish their apartment. The furniture they want costs \$5779.95, including taxes and delivery charges. They will need to use credit and can afford monthly payments of \$500. Which credit option should they choose?

Option A: a line of credit at 8.6%, compounded daily

Option B: furniture store financing at 29.95% , compounded monthly, with a \$150 rebate.

a) How long will it take them to pay off the balance for each option?

Option A	Option B
N =	N =
I =	I =
PV =	PV =
PMT =	PMT =
FV =	FV =
P/Y =	P/Y =
C/Y =	C/Y =

b) How much would they end up paying in total for each option?

6. Karl's \$800 rent payment is due. He does not have enough cash to make the payment, so he is considering these two credit options:

Option A: Borrow the money from a payday loan company for \$100 fee if it is paid back in full within 6 months.

Option B: A new credit card at 17.9% compounded monthly, which is offering a special promotion with no minimum payment for the first 6 months. Karl plans to pay off the full balance at the end of the 6 months.

Which is the better option for Karl?

Answers: 1)a) \$9315.26 b) \$815.26 c) \$12.65 d) \$377.19 2) 28.32 months = 2.36 years 3)a) \$701.01 b) \$168242.40 c) \$68242.40
 4)a) 14.31 months = 1.19 years b) \$318 5) a) A=12.11 months, B=13.38 months b) A=\$6055, B=\$6690 6) Option B \$74.32