

U7D6-T Mortgages part 1 for ON

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U7D6-T
Mortgage...

U7D6

Mortgages

A Mortgage is a loan secured by real estate. Generally a mortgage is arranged to finance the purchase of property. However, a mortgage can be set up for someone to borrow money for any reason, **using property as security for a loan.**

By Canadian Law, the interest rate on mortgages is **compounded semi-annually.**

Although most mortgages are paid monthly other lengths of times can be arranged.

Mortgage Details

- Rate – **annual interest rate paid on the outstanding mortgage balance** (remember – interest is compounded semi-annually or 2 times per year).
- Amortization Period – **Total length of time to repay the balance of the mortgage.**
- Term – **the length of time that the bank will guarantee the mortgage rates.** At the end of the term, you must re-negotiate the mortgage rate.

Calculating Mortgage Payments

Kerri has found a home she wants to purchase that fits in her budget. The purchase price of the home is \$249,000. If she has a 10% down payment what will her monthly payments be if her mortgage rate is 6.5%/a amortized over 25 years?

Amount to be mortgaged = $249\,000 - 24\,900$
 $= 224\,100$

<http://www.fncalculator.com>

TVM Advanced Calculator

Mode ☒ End ☐ Beginning

Present Value

Payment

Future Value

Annual Rate (%)

Periods

Compounding

Her monthly payments will be
\$ 1501.08

click

25×12
 $25 \times 4 \times 3$

Housing Budget –How Much Can You Afford?

There are general guidelines on how much of your income should be spent on housing and other debts.

Gross Debt Service (or monthly housing costs) **should not be more than 32% of your gross household monthly income.**

Total Debt Service **should not be more than 40% of your gross household monthly income.**

Case Study : Jane and Bob

Jane and Bob have a gross monthly income of \$4500.

Their total debt service should not exceed:

$$40\% \text{ or } 0.40 \times 4500 = \$ 1800$$

Their gross debt service (housing costs) should not exceed:

$$32\% \text{ or } 0.32 \times 4500 = \$ 1440$$

They also have a car payment of \$400, and a student loan with payments of \$200 each month. How much do they have available for monthly housing costs?

Monthly Debt Payments	Average Monthly Amount
Any loans for other property you own	\$0
Car loans/leases	\$400
Personal loans	\$0
Student loans	\$200
Other loans	\$0
Total Monthly debt payment	\$ 600

- Total Debt Service = \$1800
- Less \$600 (other debts) = **\$1200**
 *This is the amount available to housing costs.
- Gross Debt Service = **\$1440**
- Therefore maximum available to housing = **\$1200**
per month (the lesser of the above two amounts)

Jane and Bob have saved a down payment of \$50 000. They want a conventional mortgage with 25% down so they estimate their maximum house price at:

\$200 000

*50000 is 25%
so, 100000 is 50%, etc.*

That would leave them with a mortgage of:

\$150 000.

The Bank is offering a mortgage rate of 2.4% amortized over 25 years (payments are calculated so that the mortgage would be paid off in 25 years).

What would their monthly payments be?

<http://www.fnccalculator.com/>

Mode ☒ End ☐ Beginning

Present Value 150,000 PV

Payment -664.50 PMT

Future Value FV

Annual Rate (%) 2.4 Annually Rate

Periods 300 Monthly Periods

Compounding Semiannually

Their payments would be \$664.50 /month

Add monthly property taxes of \$200 and monthly heating costs of \$120 and their total housing costs will be: \$984.50

~~664.50 + 200 + 120 = 984.50~~

$$664.50 + 200 + 120 = \$984.50$$

Do they have enough money to afford monthly housing costs?

Total Debt Service (TDS) – Housing costs

$$= 1200 - 984.50$$

= 215.50 That gives them a little bit of a financial buffer if mortgage rates go up when they renew.

Buying a House

Search on-line realty for a home for Jane and Bob.
Remember they have a max of \$200 000.

<http://www.findhomesinwaterlooregion.com/search/>

<http://mattfrancis.ca/Listings/Search-The-MLS>

Spreadsheet

When paying down any kind of loan you would be surprised how much of your payment actually pays down the principal. Let's look at a payment chart for Jane and Bob's mortgage.

[https://docs.google.com/spreadsheets/d/1nIJrsY91quQKmbqNoKc-Xj2g40NQJthqXGLgOV_e7Q/edit - gid=0](https://docs.google.com/spreadsheets/d/1nIJrsY91quQKmbqNoKc-Xj2g40NQJthqXGLgOV_e7Q/edit-gid=0)