More Terminology:

| Pre-Approved <br> Mortgage | - The maximum amount that can be borrowed from <br> a lending institution to purchase a house <br> - Used to determine the maximum house price a <br> buyer can afford |
| :--- | :--- |
| Semi-Monthly <br> Payment | - Half the monthly payment is paid twice a month, <br> usually on the $15^{\text {th }}$ and the $30^{\text {th }}$ of each month |
| Bi-Weekly <br> Payment | - A payment is made every 2 weeks <br> - The amount of the payment is: <br> (monthly amount) $\times 12 \div 26$ |
| Accelerated Bi- <br> Weekly Payment | - Half the monthly payment is paid every 2 weeks <br> - The equivalent of one extra monthly payment is |
| Weekly Payment | - A payment is made every week <br> - The amount of the payment is: <br> (monthly amount) $12 \div 52$ |
| - One quarter of the monthly payment is paid each <br> Accelerated <br> Weekly Payment | Week |

## Example 1:

Danny and Melinda receive approval from their bank for a pre-approved mortgage of \$167000 for the townhouse they wish to purchase. The current annual interest rate for a five-year fixed term mortgage is 6.09\%.
a. Determine the monthly payment for a 20-year amortization period.
b. Calculate the total amount paid for the mortgage.
c. Determine the monthly payment for a 15-year amortization period.
d. Calculate the total amount paid for the mortgage in part $c$.
e. Compare your answers to parts a and c. How much more is the monthly payment for the 15-year mortgage?
f. Compare your answers to parts $b$ and d. How much less would Danny and Melinda pay by choosing a 15-year amortization period?

## Example 2:

Mikayla's monthly mortgage payment will be $\$ 1250.87$. She was advised that she could pay down the mortgage faster by changing the frequency of the payments.
a. Determine the payment amount for each payment frequency.

| Payment Frequency | Amount of Payment (\$) |
| :--- | :--- |
| semi-monthly |  |
| bi-weekly |  |
| accelerated bi-weekly |  |
| Weekly |  |
| Accelerated weekly |  |

b. Calculate the total amount paid in one year for each frequency.

| Payment Frequency | Amount Paid in One Year (\$) |
| :--- | :--- |
| semi-monthly |  |
| bi-weekly |  |
| accelerated bi-weekly |  |
| Weekly |  |
| Accelerated weekly |  |

c. Which payment frequency from part a pays down the mortgage the fastest?

## Example 3:

Arnold purchased his home five years ago and his mortgage is now up for renewal.
a. Determine the weekly payment for a mortgage of $\$ 183000$ at $5.39 \%$ per year for a 20year amortization period.
b. Arnold plans to renew his mortgage for the amount in part a. He chooses to increase his monthly payment to $\$ 1600$ per month. Determine the length of time needed to pay the mortgage in full.

