MEL 3E – Grade 11 Workplace Mathematics
Unit 5 Activity 5 Worksheet 2

Name: ____________________

Date: ______________

More Time is More Money

- *Use Spreadsheet "**U5A5 Bi Weekly**" to enter the first loan amount, an annual interest rate and the length of the loan from your record sheet.*
- ***The blue cells are the ones that you should be entering information into.***
- *This is what the spreadsheet looks like:*

	A	B	C	D	E
1	Bi-weekly amount	=B6			
2					
3	Loan Amount	5000			
4	Annual Interest Rate	0.12	Monthly Interest Rate	=B4/12	
5	Length of Loan (years)	5	Effective Interest Rate	=((1 + D4)^12)^(1/26) - 1	
6	Payment Amount	=((B3*D4)/(1-(1+D4)^ -(B5*12)))/2			
7					
8	Payment Periods	Payment Amount	Interest	Principal Paid	Principal Remaining
9	1	=$B$6	=B3*D5	=B9-C9	=B3-D9
10	2	=$B$6	=E9*$D$5	=B10-C10	=E9-D10

- *The bi-weekly payment amount is calculated by dividing the monthly payment by 2 (as banks do with mortgage payments).*
  NOTE: *The effective interest rate is simply the bi-weekly rate that is equivalent to the monthly rate from before*

- *Convert the number of pay periods into number of years (by dividing by 26).*

- *Record this time under bi-weekly payments.*

- *Determine the total interest paid and record.*

- *Repeat for the remaining loan amounts.*