## ACTIVITY 52: MORTGAGE CALCULATOR

## New Skills Reinforced:

In this activity, you will practice how to:

1. use the Payment (PMT) function.

## Activity Overview:

Assume that you work for the American Mortgage Co. Your clients constantly want to know how much their monthly mortgage payment will be for different loan amounts. When people apply for a mortgage loan, it is often necessary to calculate the payment to be paid every month for a given period. Knowing how to calculate different mortgages based on varying years and interest rates will help you decide which mortgage is right for your clients based on how much they can afford to pay each month.

In the following activity, you will be using the Payment (PMT) function to compute mortgage payments. The Payment function is used to calculate the payment for a loan based on constant payments and a fixed interest rate.

To use the Payment function, you will need values referenced for the following:
Rate This is the interest rate for the loan.
Nper This is the total number of payments for the loan.
Pv This is the present vaiue, or the total amount that a series of future payments is worth now, also known as the principal.

## Instructions:

1. Create a NEW spreadsheet.

Note: Unless otherwise stated, the font should be set to Arial, the font size to 10 point.
2. Type the data as shown.
3. Bold rows $1-15$.
4. Change the font size of cell A1 to 16 point.
5. Format the width of columns $A-F$ to 16.0 .
6. Format cell $C 4$ as percentages displaying 3 decimal places.
7. In cell B16, enter the formula $=$ PMT $(\$ C \$ 4 / 12, B \$ 11,-\$ A 16)$
8. Select cells B16 - F51 and use the AutoFill feature to copy the formula entered in cell B16 to the remaining cells.
9. Format cells A16 - F51 as currency displaying 2 decimal places and the \$ symbol.
10. Right align cells A15 - F51.
11. Format cells B10 - F10 to show a bottom border (as shown in the Data Spreadsheet).
12. Insert a header that shows:
a. Left Section Activity 52-Student Name
b. Center Section

MORTGAGE CALCULATOR
c. Right Section

Current Date

## Activity 52: Mortgage Calculator Instructions Continued

13. Insert a footer that shows:
a. Center Section PAGE number
14. Display formulas in your spreadsheet by using <CTRL> + ' to check for accuracy.
15. Carefully proofread your work for accuracy.
16. Save the spreadsheet as MORTGAGE CALCULATOR.

17: Analyze the changes made to the data in the spreadsheet.
18. Set the Print Area to include all cells containing data in the spreadsheet.
19. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.
20. Print a copy of the spreadsheet if required by your instructor.

|  | A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | American Mortgage | Co. |  |  |  |  |
| 2 | Monthly Payment Table |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 | Percentage Rate: |  | 6.000\% |  |  |  |
| 5 |  |  |  |  |  |  |
| 6 |  |  | Mortgage In Years |  |  |  |
| 7 |  |  |  | - |  |  |
| 8 |  | 10 Years | 15 Years | 20 Years | 25 Years | 30 Years |
| 9 |  | X | X | X | X | $X$. |
| 10 |  | 12 P.mts a year | 12 Pmts a year | 12 Pmits a year | 12. Pmts a year | 12.Pmts a year |
| 11 |  | 120 | 180 . | 240. | 300 . | 360 |
| 12 |  | Payments. | Payments | Payments | Payments | Payments. |
| 13 |  |  |  |  |  |  |
| 14 |  | - | - |  |  | $\cdots \cdot$ |
| 15 | Principal | 10 Years | 15 Years | 20 Years | 25 Years | 30 Years |
| 16 | 225000 |  |  |  |  |  |
| 17 | 230000 |  |  |  |  |  |
| 18 | 235000 |  |  |  |  |  |
| 19 | 240000 |  |  |  |  |  |
| 20 | 245000 |  | - |  |  |  |
| 21 | 250000 |  |  | - $\cdot$ |  |  |
| 22 | 255000 | . | . |  |  | $\cdots$ |
| 23 | 260000 |  |  | - - |  |  |
| 1 | 265000 |  |  |  |  |  |
| , | 270000 |  |  |  |  |  |
| 26 | 275000 |  |  |  |  |  |
| 27 | 280000 |  |  |  |  |  |
| 28 | 285000 |  |  |  |  |  |
| 29 | 290000 |  |  |  |  |  |
| 30 | 295000 |  |  |  |  |  |
| 31 | 300000 |  |  |  |  |  |
| 32 | 305000 |  |  |  |  |  |
| 33 | 310000 |  |  |  |  |  |
| 34 | 315000 |  |  |  |  |  |
| 35 | 320000 |  |  | - |  |  |
| 36 | 325000 |  |  |  | - |  |
| 37 | 330000 |  |  |  |  |  |
| 38 | 335000 |  |  |  |  |  |
| 39 | 340000 |  |  |  |  |  |
| 40 | 345000 |  |  |  |  |  |
| 41 | 350000 |  |  |  |  |  |
| 42 | 355000 |  |  |  |  |  |
| 43 | 360000 |  |  |  |  |  |
| 44 | 365000 |  |  |  |  | - - |
| 45 | 370000 |  |  |  |  |  |
| 46 | 375000 |  |  |  |  |  |
| 47 | 380000 |  |  |  |  |  |
| 48 | 385000 |  |  |  |  |  |
| 49 | 390000 |  |  |  |  |  |
| 50 | 395000 |  |  |  |  |  |
| 51 | 400000 |  |  |  |  |  |

