

# Lookup Commands

The LOOKUP COMMAND allows you to copy data from a table and insert that data in other parts of the spreadsheet. It saves time re-entering the same data over and over. To look up information from a table you need to use the LOOKUP function.

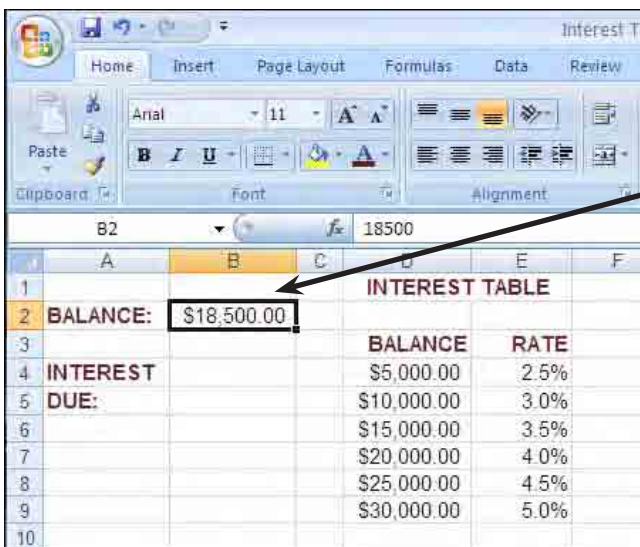
There are two different types of LOOKUP functions, VLOOKUP for searching vertically in columns and HLOOKUP for searching horizontally across rows. We will use the VLOOKUP function in this chapter, but the HLOOKUP function works in the same way.

## Interest Rate Calculations

Many banks offer varying degrees of interest depending on the amount deposited in the account. We can use the LOOKUP function to display the correct amount of interest on any entered deposit.

### A Loading the Template

- 1 Load Microsoft Excel 2007 and click on the OPEN icon in the QUICK ACCESS TOOLBAR or in the OFFICE BUTTON.
- 2 Access the EXCEL 2007 SUPPORT FILES, open the CHAPTER 12 folder and load the INTEREST TABLE file, selecting YES to the READ-ONLY message.

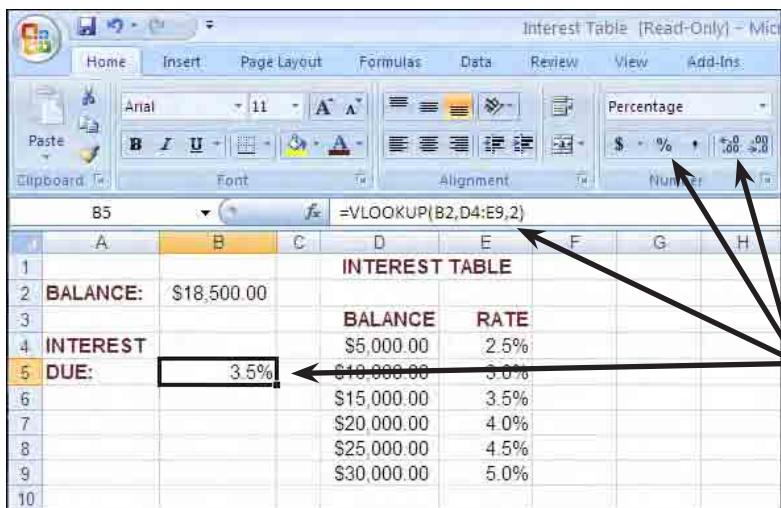


	A	B	C	D	E	F
1				INTEREST TABLE		
2	BALANCE:	\$18,500.00				
3				BALANCE	RATE	
4	INTEREST			\$5,000.00	2.5%	
5	DUE:			\$10,000.00	3.0%	
6				\$15,000.00	3.5%	
7				\$20,000.00	4.0%	
8				\$25,000.00	4.5%	
9				\$30,000.00	5.0%	
10						

3 In cell B2 enter the value: \$18500.00. This is the balance that we are going to calculate interest on.

## B Calculating the Interest Due

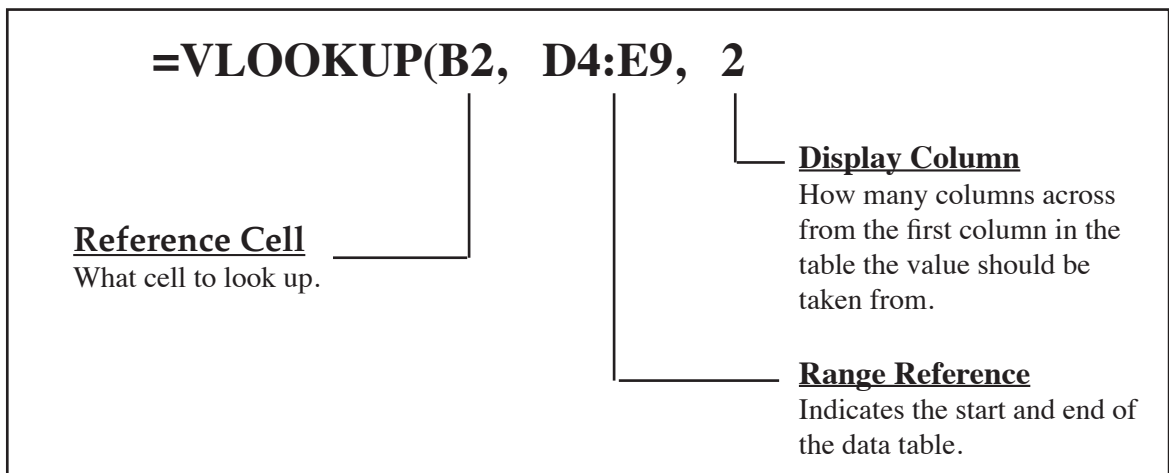
We need to use the LOOKUP function to find the interest due on the balance. Microsoft Excel will look up the table and find the EQUAL OR CLOSEST LOWER value to the balance (\$15000).



1 In cell B5 enter the formula:  
`=VLOOKUP(B2,D4:E9,2)`  
 and format it to PER CENT with 1 decimal place.

**NOTE:** The formula says: look up the value stored in cell B2 then look at the values in the table, find the cell with the EQUAL or CLOSEST VALUE BELOW the B2 value, then display the adjacent value from the second column of the table: the value next to \$15000 (that is, 3.5%).

2 The LOOKUP function has three sections:



- NOTE:**
- i There should not be any spaces in the function formula.
  - ii If we had wanted the **BALANCE** (\$15000) displayed instead of the **RATE**, we would have entered:

= VLOOKUP(B2,D4:E9,1)

the 1 indicates the first column of the table.

	A	B	C	D	E
1				INTEREST TABLE	
2	BALANCE:	\$5,286.00			
3				BALANCE	RATE
4	INTEREST			\$5,000.00	2.5%
5	DUE:	2.5%		\$10,000.00	3.0%
6				\$15,000.00	3.5%
7				\$20,000.00	4.0%
8				\$25,000.00	4.5%
9				\$30,000.00	5.0%
10					

3 Change the balance in cell B2 to \$5296. The Interest Due should change to 2.5%.

	A	B	C	D	E
1				INTEREST TABLE	
2	BALANCE:	\$4,000.00			
3				BALANCE	RATE
4	INTEREST			\$5,000.00	2.5%
5	DUE:	#N/A		\$10,000.00	3.0%
6				\$15,000.00	3.5%
7				\$20,000.00	4.0%
8				\$25,000.00	4.5%
9				\$30,000.00	5.0%
10					

4 Enter a balance below \$5000 you will receive the #N/A error message.

**NOTE:** The error message indicates that Microsoft Excel cannot locate the closest lower value in COLUMN D. If possible it is always better to start a lookup table with zero.