

## COMPUTER SPREADSHEETS

A *spreadsheet* is a collection of items arranged in a tabular format and organized in rows and columns. Typically, rows are assigned numbers (1, 2, 3, ...) and columns are assigned letters (A, B, C, ...) as illustrated below.

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						

A *cell* is a unique element identified by an *address* consisting of the column letter and the row number. For example, the address of the shaded cell shown above is E3. A cell may contain a number, formula, or a label.

By default, when a cell containing a formula is copied to another cell, the column and row references will automatically be changed (this is called *relative addressing*). The following example demonstrates relative addressing.

$$C3 = B4 + D5$$

If C3 is copied to	The result is
D3	$D3 = C4 + E5$
C4	$C4 = B5 + D6$
B4	$B4 = A5 + C6$
E5	$E5 = D6 + F7$

If a row or column is referenced using *absolute addressing* (typically indicated with the \$ symbol), the row or column reference will not be changed when a cell containing a formula is copied to another cell. The following example illustrates absolute addressing.

$$C3 = \$B4 + D\$5 + \$A\$1$$

If C3 is copied to	Result is
D3	$D3 = \$B4 + E\$5 + \$A\$1$
C4	$C4 = \$B5 + D\$5 + \$A\$1$
B4	$B4 = \$B5 + C\$5 + \$A\$1$
E5	$E5 = \$B6 + F\$5 + \$A\$1$