# NDA

Business Skills
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Welcome to NDA's monthly email newsletter for December 2007.

One of the paradoxes we notice as a training company is that many of our younger clients have excellent computer skills but may be deficient in basic mathematics. As a card carrying Grumpy Old Man my personal view is that this due to starting salaries that end with too many 0's to have to worry about adding up the price of fish. As our personal contribution to the Government's planned refurbishment of education in Tasmania we therefore offer our top five tips (yes Bradley, one hand is sufficient) for basic spreadsheet maths.

NDA will be closing for the Christmas break from 24 December to 4 January inclusive. We wish all our clients and friends the very best for the holiday season and the New Year and express our appreciation for giving us the opportunity to work with them during 2007.

Kind regards

Nigel Davies

**Director, NDA**

## Basic spreadsheet maths

1. **BODMAS**. No Bradley, it's not a new mixer. BODMAS stands for Brackets, Order, Divide, Multiply, Add, Subtract and represents the sequence in which you calculate mathematical expressions. For example:

- Brackets. 6 x 3 + 2 = 20 but 6 x (3+2) = 30. You calculate the contents of the brackets first…
- Order (powers and roots). $3 \times 2^2 = 12$, not 36.    …then powers before divide and multiply…
- Divide and Multiply. 3 + 2 x 6 = 15, not 30.   …which are calculated before add and subtract…
- Add and Subtract.  …and if there are no other operators, just calculate the formula from left to right.

2. **Percentages**. If Department X's budget increases from $417,000 to $451,000 and Department Y's budget from $219,000 to $246,000 which department has been more favourably treated in relative terms? No Brad, it's not easy to make a quick comparison – however by expressing the increases as percentages we can answer the question.  To calculate Department Y's increase as a percentage we divide the increase ($27,000) by the old budget amount ($219,000) giving 0.123 and format the result as a percentage = 12.3%. The Excel formula might look something like =(B2-B1)/B1. The equivalent calculation for Department X gives 8.1% so we can say that Department Y has received the bigger relative increase.

3. **Formulas**. We use the Sum function as an efficient method of adding a column or row of numbers – for example =SUM(B3:B18) sums the content of all cells from B3 to B18 inclusive. For simple formulas we use the appropriate cell addresses and mathematical operators. For example =A2*(C11-C12) subtracts the contents of C12 from C11 and multiplies the result by the contents of A2. What we do not need to do is combine the two methods – for example = SUM( A2*(C11-C12)). While this produces the correct answer it is a bit like drinking beer through a straw.

4. **Embedded numbers**. Don't put numbers in formulas, no, not ever Brad. Rather than use a formula such as =B5*6, type the variable 6 in a cell (perhaps B2) with an explanatory label in an adjacent cell and use the formula =B5*B2. Typing numbers in formulas means that a) data may be misinterpreted if key variables are hidden from the casual glance, and b) variable values can only be changed by editing formulas, with the possibility of introducing errors and inconsistencies.

5. **Absolute cell references**. If we take the formula =B5*B2 from the previous example and copy it along a row, the copied formulas will be = C5*C2, =D5*D2 etc. This is because the default setting for Excel is to adjust the cell references in copied formulas *relative* to their new location. However if we wish all the copied formulas to refer to the variable cell B2 this cell reference must be made *absolute*. We achieve this by

pressing function key F4 as we enter the cell reference B2 in the formula. The original formula then appears as = B5*$B$2. If the formula is copied, the copied formulas will be = C5*$B$2, = D5*$B$2 etc. Any change to the variable value in cell B2 will automatically 'flow' through to all the formulas. Understanding absolute cell references is the key to the correct use of spreadsheets.

## Stand by rates

NDA is now able to release the following courses for Stand-by enrolment, most at significant discounts on standard rates (to obtain the discount, please mention this email when making bookings):

### Hobart – IT courses
Access Programming 27/28 Nov – 20% discount $440 (standard rate $550)
Excel Introductory 29 Nov / 3 Dec – 20% discount $368 (standard rate $460)
Excel Intermediate 3/5 Dec – 20% discount $368 (standard rate $460)
Project 4/6 Dec – standard rate $460
Excel Advanced 5/7 Dec – standard rate $460
Image Manipulation 6 Dec – standard rate $230
Outlook 6 Dec – 20% discount $184 (standard rate $230)
Access Introductory / Intermediate 10/12 Dec – standard rate $550
Internet Basics 10 Dec – 20% discount $184 (standard rate $230)
Word Introductory 11/13 Dec – 10% discount $414 (standard rate $460)
MYOB Setup and Operation 13/14 Dec – standard rate $550
Word Intermediate 13/17 Dec – 10% discount $414 (standard rate $460)
Access Advanced 14/18 Dec – standard rate $460
MYOB Payroll 17 Dec – 20% discount $220 (standard rate $275)
Word Advanced 17/19 Dec – standard rate $460
Introduction to PCs with Windows and Office 19/21 Dec – 10% discount $414 (standard rate $460)

### Hobart – Business Skills courses
Time Management 29 Nov – standard rate $275
Understanding Financial Reports 30 Nov – standard rate $275
Professional Telephone Techniques 11 Dec – 20% discount $220 (standard rate $275)
Training Delivery 20/21 Dec – 20% discount $440 (standard rate $550)

### Launceston – IT courses
Publisher 28 Nov – standard rate $230
Excel Introductory 29 Nov / 3 Dec – standard rate $460
Designing Simple Web Sites 30 Nov – 20% discount $184 (standard rate $230)
Excel Intermediate 3/5 Dec – standard rate $460
Project 4/6 Dec – 10% discount $414 (standard rate $460)
Excel Advanced 5/7 Dec – 10% discount $414 (standard rate $460)
Outlook 6 Dec – 20% discount $184 (standard rate $230)
Access Introductory / Intermediate 10/12 Dec – standard rate $460
Word Introductory 11/13 Dec – 10% discount $414 (standard rate $460)
Word Intermediate 13/17 Dec – 10% discount $414 (standard rate $460)
Access Advanced 14/18 Dec – standard rate $460
PowerPoint 20 Dec – standard rate $230

### Launceston – Business Skills courses
Time Management 29 Nov – 20% discount $220 (standard rate $275)
Superior Customer Service 7 Dec – standard rate $275
Conflict Resolution & Assertiveness 11 Dec – standard rate $275
OH&S in the Workplace 12 Dec – standard rate $275
Business Writing Skills 18 Dec – standard rate $275
Training Delivery 20/21 Dec – standard rate $550

### North West – IT courses
Excel Introductory 29 Nov / 3 Dec – 20% discount $368 (standard rate $460)

Excel Intermediate 3/5 Dec – 20% discount $368 (standard rate $460)
Outlook 6 Dec – 20% discount $184 (standard rate $230)
Access Introductory / Intermediate 10/12 Dec – standard rate $460
Word Introductory 11/14 Dec – 10% discount $414 (standard rate $460)
MYOB Setup and Operation 13/14 Dec – standard rate $460
Word Advanced 18/20 Dec – 10% discount $414 (standard rate $460)
Introduction to PCs with Windows and Office 19/21 Dec – standard rate $460

Call NDA on 1300 765 376 for more information or make a booking here. Existing bookings may not be amended but where at least one person is already enrolled at full price, additional people from the organisation may be enrolled for 50% of the standard course fee. These discounts may not be used in conjunction with any other offer.

## Our privacy policy

NDA's privacy statement is published in full at http://www.nda.com.au/quickfind/privacy.html. If you do not wish to receive the NDA newsletter, please click here.

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