

Edward Elgar Publishing

Setting up Maths in your book

- All maths should be correct within your Word chapter files.
- Any displayed equations or inline maths should be created using **Microsoft Word's Equation Editor** or **MathType for Windows (MathType 7)***.
- Please do not insert maths as images/pictures/graphics or keyed text, this cannot be processed by the typesetter.
- All equations should be fully created in **Microsoft Word's Equation Editor** or **MathType for Windows (MathType 7)***.
- Please also send us a PDF of any chapters which contain Maths so we have a static version of your chapter as reference to know how your chapter should look. The PDF will prevent any layout issues which can crop up when creating equations in Word documents.

*Our software does not support the use of MathType's free 'Add-In for Microsoft 365' – only **MathType for Windows (MathType 7)** is compatible. If you do not have access to MathType 7, please use Microsoft Word's Equation Editor instead. Please speak to your Commissioning Editor if you plan on using a different equation editor on your machine, as we may not be able to accept this submission.

Advantages to using our recommended software options

Errors won't be introduced at typesetting stage through re-keying.

Typesetting software works well with these programs.

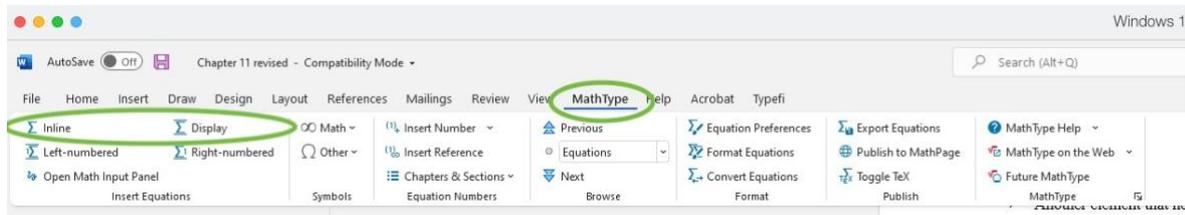
Layout of equations should be retained.

Maths can be re-flowed through various softwares/outputs.

MathType for Windows (MathType 7)

Please ensure that you are using the **MathType for Windows (MathType 7)**. This can be purchased at: [this link](#).

When this program is downloaded, it will appear in the top ribbon of your Microsoft Word. The 'Inline' and 'Displayed' buttons can then be used to insert equations:

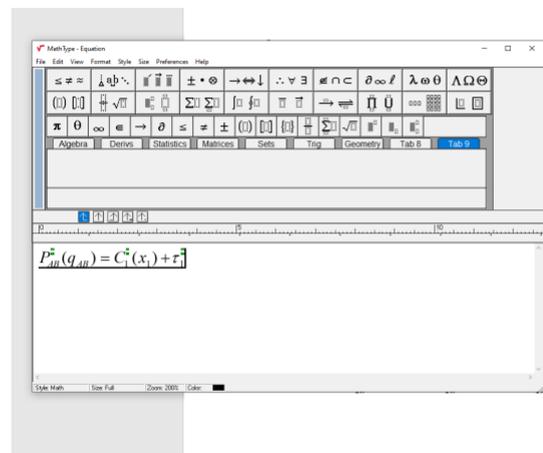


Clicking on either 'Inline' or 'Displayed' will automatically open up MathType's Equation Editor in a pop-up, where you can use the MathType tools to insert your equation.

MathType allows good flexibility and is a highly regarded mathematical tool. Using this programme is the best way to ensure accuracy is retained at the typesetting stage as it is much closer to the software we use in-house.

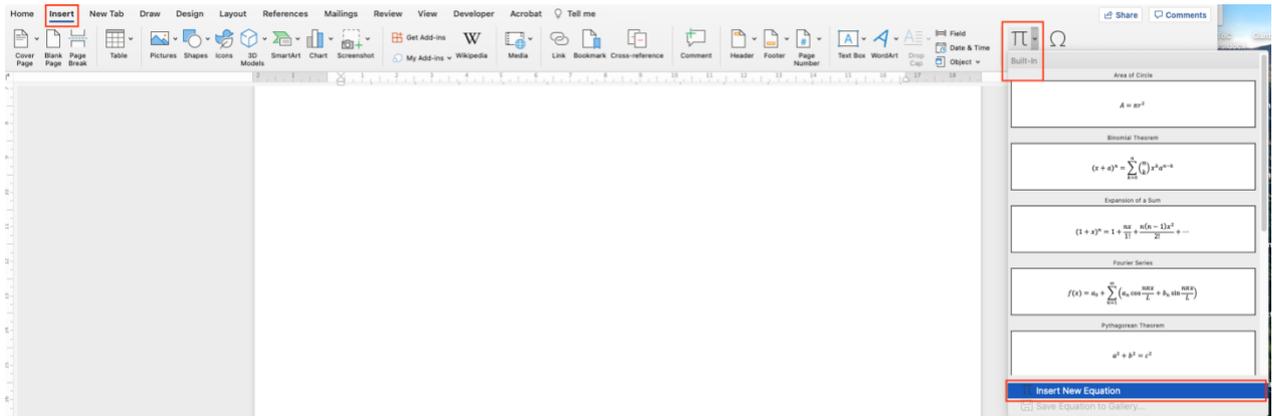
Fonts and Styles

- Using MathType we recommend using **Factory Settings** (Style>Define>Advanced>Factory Settings; change to 'Use for new equations').
- Do not change the font to anything other than those included within the normal font set e.g. Times New Roman.
- When adding a **MathType** equation from another Word document, ensure you copy the equation from within the MathType window, rather than from the text. Then paste it into a new **MathType** window in your new document. In 'Preferences' select 'Load from Factory Settings...' and then 'Use for new equations' and click 'OK'.

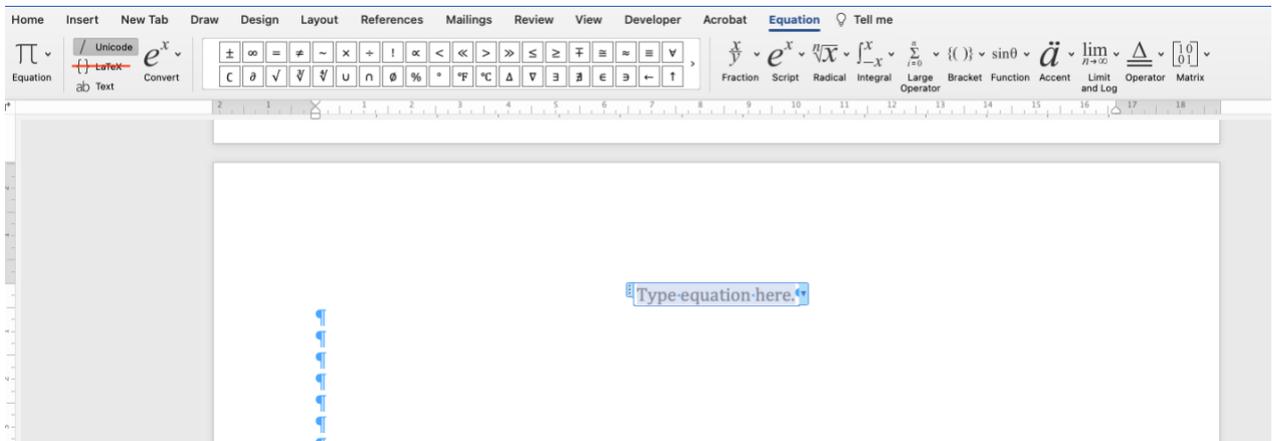


Microsoft Word's Equation Editor

This software is free with Word. Go to 'Insert' in the ribbon > 'Equation' > 'Insert New Equation'.



This will open Word's Equation Editor ribbon and a blue placeholder bar in your Word document. The ribbon can be used to key in any characters you need, and the blue placeholder shows the location of where your equation will appear. Please do not use the LaTeX option, as this does not convert well to our software.



Fonts and Styles

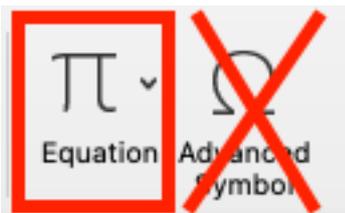
- For **Microsoft Word's Equation Editor** we recommend **default styles** (Style>Define).
- Do not change the font to anything other than those included within the normal font set e.g. Cambria Math.

Please keep the three following conditions in mind when using Microsoft Word's Equation Editor.

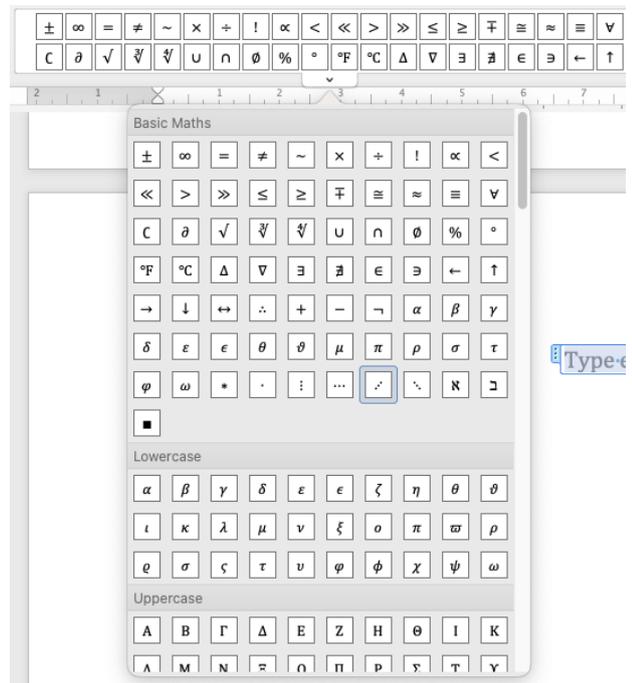
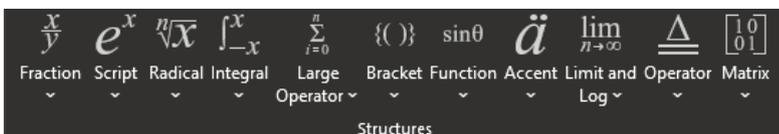
Condition 1:

To make sure your equation converts perfectly during the Typesetting stage, please do not use the 'Advanced Symbol' insert.

Please only use symbols from the Symbols group on the Equation tab =>



and structures from the Structures group:



Condition 2:

When writing out your equation, please do not include any spaces because spaces typed into Word Equations often appear as empty glyph errors upon conversion. Every character should be flush with the one next to it. You can check whether unnecessary spaces have cropped up by marking formatting marks visible in your Word programme with the highlighted icon:



Following this guide, this equation:

$$0 \cdot \leq v \cdot \leq R \cdot (v)$$

should be submitted like this:

$$0 \leq v \leq R(v)$$

If you need to include lines of text in your equation, please consider splitting the equation out so as not to include text, or to have the text appear flush with the equation. Therefore, this equation (yellow highlight used to denote equations in screenshot):

$$\text{where } L \equiv (1 - e^{-r\tau(\theta)}) \text{ and } \Pi \equiv p \cdot \frac{q(p, \theta)}{r}$$

Should either come to us as Option 1 (preferred):

$$\text{where } L \equiv (1 - e^{-r\tau(\theta)}) \text{ and } \Pi \equiv p \cdot \frac{q(p, \theta)}{r}$$

Or Option 2 (the spacing will be corrected at the typesetting stage):

$$\text{where } L \equiv (1 - e^{-r\tau(\theta)}) \text{ and } \Pi \equiv p \cdot \frac{q(p, \theta)}{r}$$

Condition 3:

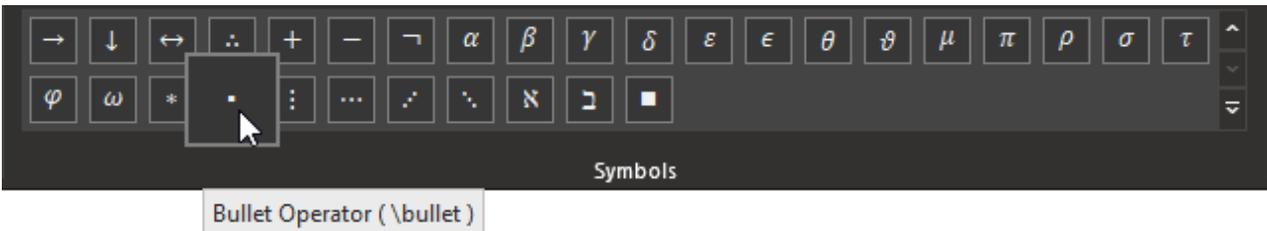
When using symbols from Word's Symbols group, be sure to take note of the group of characters your chosen symbol is coming from and also note the symbol's name. An example:

One symbol which is common for authors to choose incorrectly is the dot symbol often used to represent multiplication – this one: ·

The most commonly-chosen incorrect symbol for multiplication is this one:

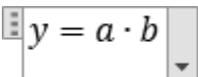


Notice though, if we hover the mouse pointer over the symbol, Word magnifies the symbol and gives me its official name:



Using that symbol in your equation looks like the proper symbol for multiplication, but when converted during our typesetting process, it will not appear as expected because the wrong symbol has been used.

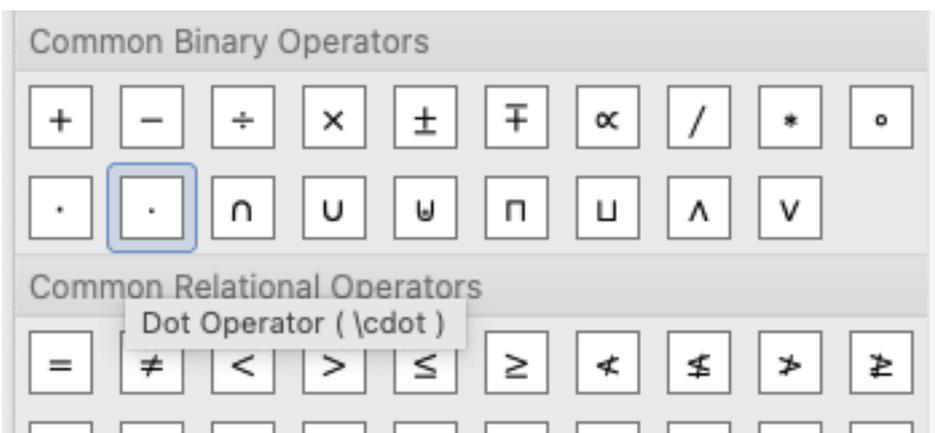
i.e. this in your Word document



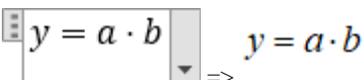
will become this after typesetting:

$$y = a \bullet b$$

Thus, if looking for an “operator” symbol, please scroll down to Operators in the symbol list:



to ensure the symbol conversion is correct later on:



General Advice

- If an equation is over two lines please ensure it breaks in a convenient place.
- Make sure all brackets are appropriately sized to fit the equation.
- Punctuation as part of the equation should also be inserted in **Microsoft Word's Equation Editor** or **MathType for Windows (MathType 7)**
- Punctuation after inline elements of maths should **not** be part of the **Microsoft Word's Equation Editor** or **MathType for Windows (MathType 7)** entry.
- Numbered equations should be numbered with the chapter number and the equation number, sequentially throughout the chapter. For example, the third numbered equation in Chapter 4 would be numbered 4.3. Do not insert the equation number from within the equations editor. Use a tab separator between the equation and the number.
- **Inline equations.** Avoid in-line expressions that require lines of type to spread – i.e. overbars, summation signs, stacked fractions, etc. Please set these to be displayed rather than in-line, or, if the fraction is more complex and cannot be stacked as a single character, use negative superscripts, e.g. a(bx)-1.

Common Issues

How to check your maths is correctly inserted

To check that **MathType for Windows (MathType 7)** is working simply click on the equation on a machine with the software installed and this should open the MathType Equation Editor whilst greying out the equation in question.

change in the equilibrium full price P_{AB} .

• **Example 2:** two links in series

• Trip demands exist between all pairs of nodes. There are three O-D pairs, i.e., AB, BC, and AC. This setting is closer to general network than the previous one. Link flows are the sum of flows on all paths between the nodes.

$$(8) \quad x_1 = q_{AB} + q_{AC}, \quad x_2 = q_{BC} + q_{AC}$$

• Suppose that only link 1 can be tolled.

following system of equations:

$$(9a) \quad P_{AB}(q_{AB}) = C_1(x_1) + \tau_1$$

$$(9b) \quad P_{BC}(q_{BC}) = C_2(x_2)$$

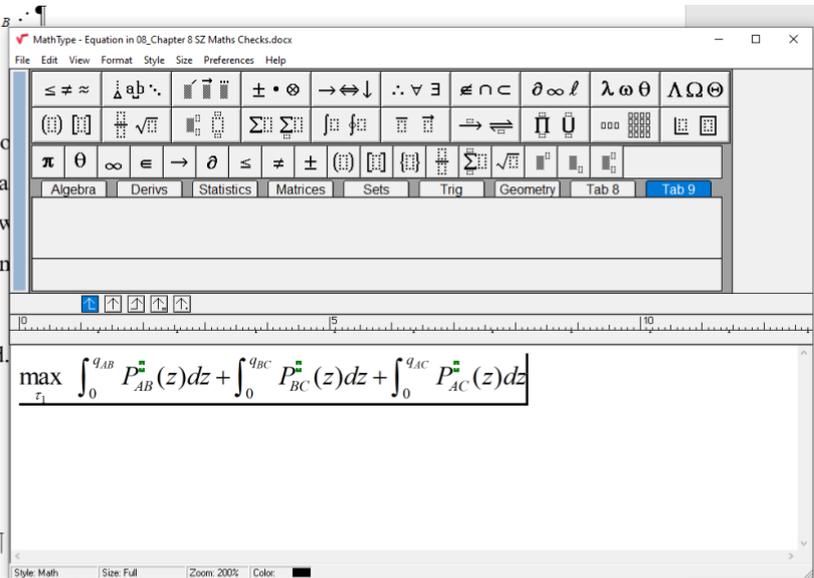
$$(9c) \quad P_{AC}(q_{AC}) = C_1(x_1) + \tau_1 + C_2(x_2)$$

• The second-best pricing problem to be solved is

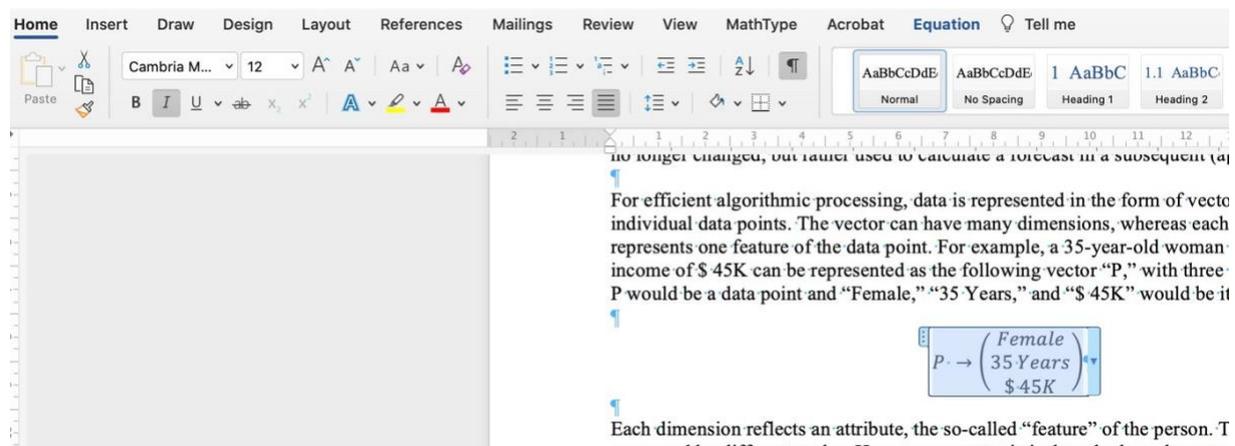
$$(10) \quad \max_{\tau_1} \int_0^{q_{AB}} P_{AB}(z) dz + \int_0^{q_{BC}} P_{BC}(z) dz + \int_0^{q_{AC}} P_{AC}(z) dz - C_1(x_1)x_1 - C_2(x_2)x_2$$

We have the same optimal condition as in equation (6). The comparative statics for (9) yields

• •



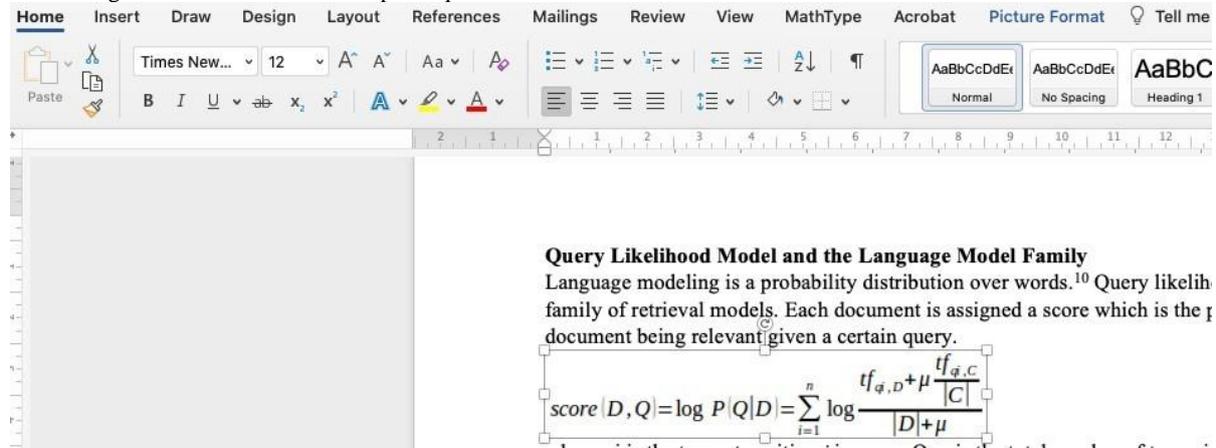
To check that **Microsoft Word's Equation Editor** is working simply click on the equation and a blue box should show and the 'Equation' tab should appear at the top of the document.



Examples of incorrect maths to be avoided

Maths inserted as an image:

This method will not work for our typesetting processes. You can check this by clicking your maths and seeing the box with squares appear and the ‘Picture’ tab appearing at the top of the screen. If your maths has been supplied this way it will need to be changed to use either of our accepted equation editors. This is the same for in-text maths.



Maths which has been converted from a PDF to Word:

This conversion causes formatting errors to be introduced into the file and will also render maths as just regular text rather than properly input equations/formulas. Please see below the PDF and then the Word and see that the formatting has been lost. Whilst we do ask for a PDF to be supplied of the maths for reference of what it should look like, the Maths should always be correct in your word file as this is the file copy-editors and Typesetters use to work with. The PDF can be used to flag these kinds of issues during the writing process.

PDF

Word

