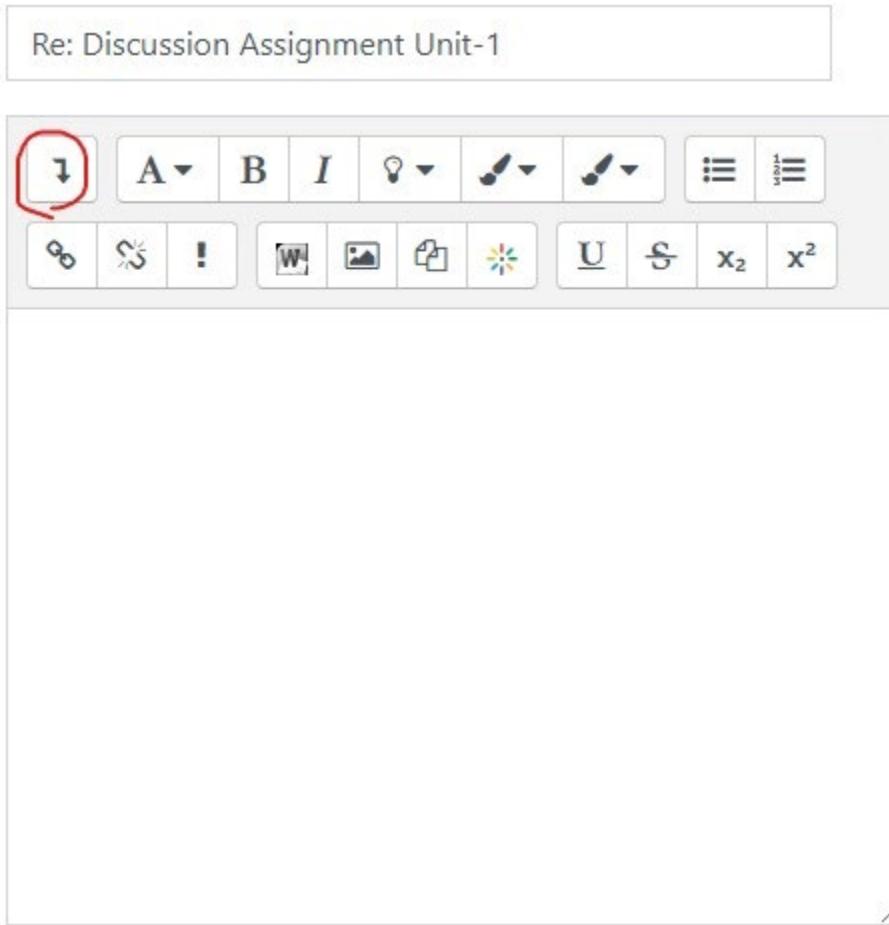


How to use ‘Equation editor’ in Moodle

These instructions will describe how to format equations and mathematical symbols using ‘Equation editor’ in Moodle. Use the following steps to create an equation in the text.

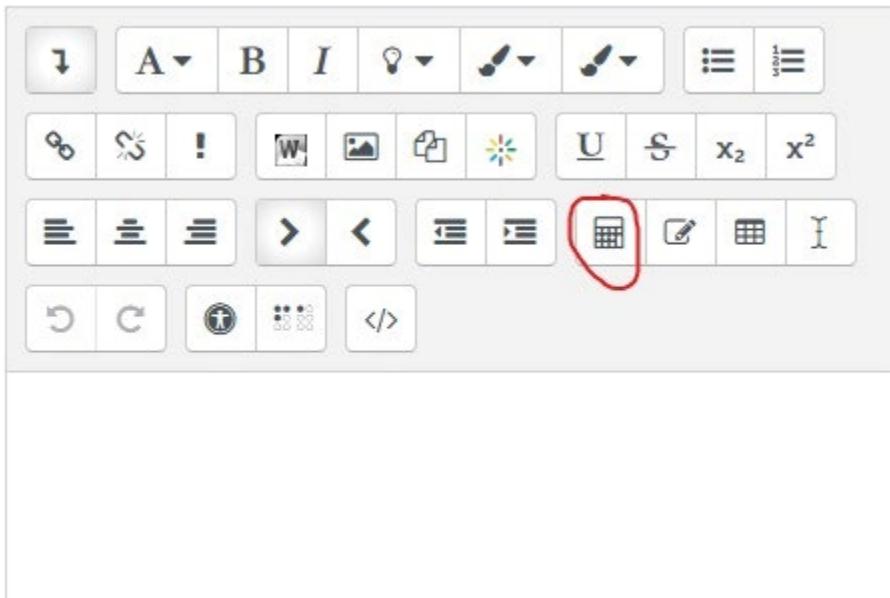
Step-1

In the prompt click on ‘’, just above the text box. More buttons will appear.



Step-2

The ‘Equation editor’ button appears. It looks like a calculator. Please click on it.



Step-3

The ‘Equation editor’ contains Operators, Arrows, Greek symbols and Advanced. If you click on ‘Operators’, there will be a number of operators you can use in the text. Similarly, you get a selection of Arrows and Greek symbols.

Equation editor x

Operators Arrows Greek symbols Advanced

.	\times	*	\div	\diamond	\pm	\mp	\oplus
\ominus	\otimes	\oslash	\odot	\circ	\bullet	\asymp	\equiv
\subseteq	\supseteq	\leq	\geq	\lhd	\rhd	\sim	\simeq
\approx	\subset	\supset	\ll	\gg	\prec	\succ	\propto
\in	\ni	\forall	\exists	\neq			

Edit equation using TeX

Equation editor

x

Operators	Arrows	Greek symbols	Advanced	
\leftarrow	\rightarrow	\uparrow	\downarrow	\leftrightarrow
\nwarrow	\Leftarrow	\Rightarrow	\Uparrow	\Downarrow

Edit equation using **TeX**

Equation editor

x

Operators	Arrows	Greek symbols	Advanced	
α	β	γ	δ	ϵ
ι	κ	λ	μ	ν
σ	τ	v	ϕ	χ
Δ	Θ	Λ	Ξ	Π
Ψ	Ω		Σ	Υ
			Γ	Φ

Edit equation using **TeX**

Note: You can always preview the expression.

For example,

If you want to type **The relation between x and y is $x \leq y$**

- In the prompt, first type ‘The relation between x and y is **then go to ‘Equation editor’ Click on ‘Operators’**’
- Then type x
- Choose ‘ \leq ’ from the list and type ‘y’
- It appears as $x \leq y$. This is the latex version of $x \leq y$.

- Then click on ‘Save equation’ at the bottom of page.

The text will appear as ‘The relation between x and y is $x \leq y$ ’. After you post into the forum the latex version will appear as a Mathematical expression.

Note: Always give space between variable and operator. For example $x \leq y$ is wrong. $x \leq y$ is the right format.

Note: Don’t forget to click on ‘Save equation’ after writing the equation.

Equation editor

Operators	Arrows	Greek symbols	Advanced				
.	\times	*	\div	\diamond	\pm	\mp	\oplus
\ominus	\otimes	\oslash	\odot	\circ	\bullet	\asymp	\equiv
\subseteq	\supseteq	\leq	\geq	\preceq	\succeq	\sim	\simeq
\approx	\subset	\supset	\ll	\gg	\prec	\succ	∞
\in	\exists	\forall	\exists	\neq			

Edit equation using [TeX](#)

$x \leq y$

Equation preview

$\downarrow x \leq y$

An arrow indicates the position that new elements from the element library will be inserted.

[Save equation](#)

The same technique can be used to insert Arrows and Greek symbols.

To create an equation in the text

When you need an equation in the text, keep your cursor in the text box, then use step-1, step-2 to go to ‘Equation Editor’. Then click on ‘Advanced’. There you will find all forms of equations. After that, choose the suitable expression in the empty box. You will get the latex version of it. Then re-write it as the desired equation. Finally, click on ‘Save equation’. When you post into the forum you will get the Mathematical equation in the text.

Equation editor

×

Operators	Arrows	Greek symbols	Advanced
-----------	--------	---------------	----------

$\sum a, b$

$\sqrt[a]{b+c}$

$\int_a^b c$

$\iint_a^b c$

$\iiint_a^b c$

$\oint a$

(a)

$[a]$

$\{a\}$

$ a_1 \ a_2 \ a_3 \ a_4 $

$\frac{a}{b+c}$

\vec{a}

$\binom{a}{b}$

$\begin{bmatrix} a \\ b \end{bmatrix}$
--

$\left\{ \begin{matrix} a \\ b \end{matrix} \right\}$

$\lim_{x \rightarrow n} f(x) = a$

a_b

$\log_b a$

a^{x+n}

Edit equation using **TeX**

Example: Compound interest can be calculated using the formula $A(t) = P \left(1 + \frac{r}{n}\right)^{nt}$

Formatting:

In the prompt write ‘Compound interest can be calculated using the formula’ then use step-1, step-2 to go to the Equation editor. Next, click on ‘Advanced’. Then you will get all the options. Choose the suitable option for you.

Now click in the empty space, then write $A(t) = P$ choose a^{x+n}

L.V: $A(t) = P a^{\{x+n\}}$

Choose 'a' by (a) from the list

L.V: $A(t) = P (a)^{\{x+n\}}$

Replace 'a' by $\left(1 + \frac{r}{n}\right)$ and 'x+n' by nt

L.V: $A(t) = P \left(1 + \frac{r}{n}\right)^{nt}$

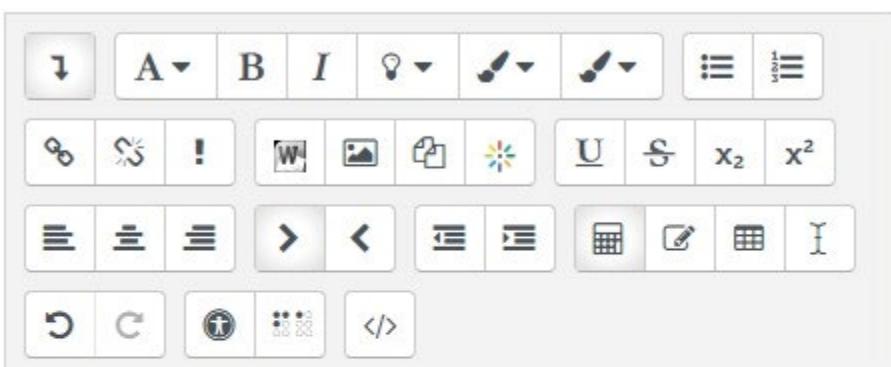
Replace 'a' by r and 'b+c' by n. Then we will get latex version of our equation.

$A(t) = P \left(1 + \frac{r}{n}\right)^{nt}$

Then click on 'Save equation'. We will get the following image.

Note: Choose refers to choosing the form from the list. L.V means Latex Version

Discussion Assignment



Compound interest can be calculated using the formula

$$A(t) = P \left(1 + \frac{r}{n}\right)^{nt}$$

After posting to forum, automatically, you will get the mathematical equation in the text.



Discussion Assignment

by Yazali Kumar (Instructor) - Tuesday, 10 May 2022, 9:26 AM

Compound interest can be calculated using the formula

$$A(t) = P(1 + \frac{r}{n})^{nt}$$

17 words

Average of ratings: -

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For Latex Mathematical symbols, please go through this link

[symbols.pdf \(rice.edu\)](#)

You may practice the following:

1. $f(x, y) = \frac{2xy}{x^2 + y^2}$

(Hint: Use $\frac{a}{b+c}$, a^{x+n} forms)

L.V: $f(x,y) = \frac{2xy}{x^2+y^2}$

2. $\sin^2 \theta + \cos^2 \theta = 1$

(Hint: Use a^{x+n} and insert θ from Greek symbols)

L.V: $\sin^2 \theta + \cos^2 \theta = 1$

3. $\int_0^1 x^2 dx = \frac{1}{3}$

(Hint: Use \int_a^b and $\frac{a}{b+c}$ form)

L.V: $\int_0^1 x^2 dx = \frac{1}{3}$

4. $\lim_{x \rightarrow 2} \frac{x^2 + 4}{x + 2} = 2$

(Hint: Use $\lim_{x \rightarrow n} f(x) = a$ form)

L.V: $\lim_{x \rightarrow 2} \frac{x^2 + 4}{x + 2} = 2$

5. $\sum_{n=1}^5 n = 15$

L.V: $\sum_{n=1}^5 n = 15$

6. $\frac{d^2y}{dx^2} + xy = e^x$

(Hint: Use $\frac{a}{b+c}$, a^{x+n} forms)

L.V: $\frac{d^2y}{dx^2} + xy = e^x$

7. $\sqrt{x} + \sqrt{y} = \sqrt{a}$

(Hint: Use $\sqrt[b+c]{b}$ form)

L.V: $\sqrt{x} + \sqrt{y} = \sqrt{a}$

8. $\vec{a} + \vec{b} + \vec{c} = \vec{0}$

(Hint: Use \vec{a} form)

L.V: $\vec{a} + \vec{b} + \vec{c} = \vec{0}$

9. $f(x) = \begin{cases} x^2, & 0 < x < 1 \\ 0, & \text{Otherwise} \end{cases}$

L.V: $f(x) = \begin{cases} x^2, & 0 < x < 1 \\ 0, & \text{otherwise} \end{cases}$

To create a Matrix in the text

In the empty text box, write the following to create 3×3 matrix

$$\begin{bmatrix} a & b & c \\ a & a & c \\ e & f & g \end{bmatrix}$$

`\begin{bmatrix}`

`a&b&c\\`

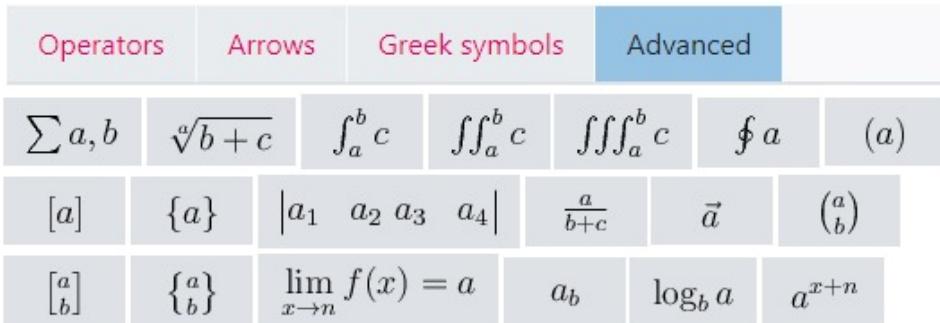
`a&a&c\\`

`e&f&g\\`

`\end{bmatrix}`

Equation editor

X



Edit equation using TeX

```
\begin{bmatrix} a & b & c \\ a & a & c \\ e & f & g \end{bmatrix}
```

Equation preview

$$\begin{bmatrix} a & b & c \\ a & a & c \\ e & f & g \end{bmatrix} \Downarrow$$

An arrow indicates the position that new elements from the element library will be inserted.

Save equation

You can always adjust the number of rows and columns based on the given matrix.

Practice the following:

$$1. \begin{bmatrix} 1 & 2 \\ 0 & -1 \\ 3 & 2 \end{bmatrix} \quad 2. \begin{bmatrix} 1 & 2 & 3 & 4 \\ 7 & 2 & -1 & 1 \\ 0 & 1 & 0 & 1 \end{bmatrix} \quad 3. \begin{bmatrix} 2 & 1 & 2 \\ 1 & 0 & 1 \end{bmatrix} \quad 4. \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix}$$

Acknowledgements to Yazali Kumar who created this handout for UoPeople