Introducció de fórmules matemàtiques

Tipus		Format	Si s'introdueix...	Es visualitza...
Delimitació de la fòrmula	**Inici**	[math]	[math]X=Y[/math]	$X = Y$
	Final	[/math]		
Tipus de lletra (Per defecte és cursiva)	**Normal (Roman)**	\mathrm	[math]\mathrm xy[/math] _versus_ [math]xy[/math]	xy versus xy
	Negreta	\mathbf	[math]\mathbf xy[/math] _versus_ [math]xy[/math]	**xy** versus xy
	Cal.ligràfica (Només s'utilitza amb majúscules)	\mathcal	[math]\mathcal XY[/math] versus [math] XY[/math]	$\mathcal{XY}$ versus XY

Taula general de tipus de lletra	$a-z$	\text	\mathbb	$A-Z$	\text	\mathbb	\mathcal	\mathscr
	a	a	⊕	A	A	𝔸	$\mathcal{A}$	$\mathscr{A}$
	b	b	𝕓	B	B	𝔹	$\mathcal{B}$	$\mathscr{B}$
	c	c	ℂ	C	C	ℂ	$\mathcal{C}$	$\mathscr{C}$
	d	d	𝕕	D	D	𝔻	$\mathcal{D}$	$\mathscr{D}$
	e	e	𝕖	E	E	𝔼	$\mathcal{E}$	$\mathscr{E}$
	f	f	𝕗	F	F	𝔽	$\mathcal{F}$	$\mathscr{F}$
	g	g	𝕘	G	G	𝔾	$\mathcal{G}$	$\mathscr{G}$
	h	h	ℏ	H	H	ℍ	$\mathcal{H}$	$\mathscr{H}$
	i	i	𝕚	I	I	𝕀	$\mathcal{I}$	$\mathscr{I}$
	j	j	𝕛	J	J	𝕁	$\mathcal{J}$	$\mathscr{J}$
	k	k	𝕜	K	K	𝕂	$\mathcal{K}$	$\mathscr{K}$
	l	l	𝕝	L	L	𝕃	$\mathcal{L}$	$\mathscr{L}$
	m	m	𝕞	M	M	𝕄	$\mathcal{M}$	$\mathscr{M}$
	n	n	𝕟	N	N	ℕ	$\mathcal{N}$	$\mathscr{N}$
	o	o	𝕠	O	O	𝕆	$\mathcal{O}$	$\mathscr{O}$
	p	p	𝕡	P	P	ℙ	$\mathcal{P}$	$\mathscr{P}$
	q	q	𝕢	$Q̌$	Q	ℚ	$\mathcal{Q}$	$\mathscr{Q}$
	r	r	𝕣	$Ř$	R	ℝ	$\mathcal{R}$	$\mathscr{R}$
	s	s	𝕤	S	S	𝕊	$\mathcal{S}$	$\mathscr{S}$
	t	t	𝕥	T	T	𝕋	$\mathcal{T}$	$\mathscr{T}$
	u	u	𝕦	U	U	𝕌	$\mathcal{U}$	$\mathscr{U}$
	v	v	𝕧	V	V	𝕍	$\mathcal{V}$	$\mathscr{V}$
	w	w	𝕨	W	W	𝕎	$\mathcal{W}$	$\mathscr{W}$
	x	x	𝕩	X	X	𝕏	$\mathcal{X}$	$\mathscr{X}$
	y	y	𝕪	Y	Y	𝕐	$\mathcal{Y}$	$\mathscr{Y}$
	z	z	𝕫	Z	Z	ℤ	$\mathcal{Z}$	$\mathscr{Z}$

Mida de text	\tiny	[math]\tiny Formula[/math]	$Formula$
	\small	[math]\small Formula[/math]	$Formula$
	\normalsize (mida per defecte)	[math]\normalsize Formula[/math]	$Formula$

		[math]Formula[/math]	
	\large	[math]\large Formula[/math]	$Formula$
	\Large	[math]\Large Formula[/math]	$Formula$
	\LARGE	[math]\LARGE Formula[/math]	$Formula$
	\light (S'utilitza per fer més legibles les lletres petites)	[math]\light \tiny Formula[/math] versus [math] \tiny Formula[/math]	$Formula$ versus $Formula$
Separació entre paraules	\hspace {num} (num és el nombre de píxels de separació)	[math]X \hspace {6}Y[/math] versus [math]X Y[/math] versus	$X\ \ Y$ versus XY versus
	\mbox{text} (Es respecten els espais)	[math] \mbox {X Y} [/math]	$X\ Y$
Signes de puntuació	\tipus{lletra}	$\underline{a}$ \underline{a} $\overline{a}$ \overline{a} $\hat{a}$ \hat{a} $\check{a}$ \check{a} $\tilde{a}$ \tilde{a} $\acute{a}$ \acute{a} $\grave{a}$ \grave{a} $\dot{a}$ \dot{a} $\ddot{a}$ \ddot{a} $\breve{a}$ \breve{a} $\bar{a}$ \bar{a} $\vec{a}$ \vec{a}	
Superíndex	text^num	[math]X^2[/math]	X^2

Subíndex	text_num	[math]X_2[/math]	X_2
Superíndex combinat amb subíndex	**text_num1^num2** **o** **text^num1_num2**	[math]X_2^3[/math]	X_2^3
		[math]X^3_2[/math]	X_2^3
		[math]ds^2 = dx_1^2 + dx_2^2 + dx_3^2 - c^2 dt^2[/math]	$ds^2 = dx_1^2 + dx_2^2 + dx_3^2 - c^2 dt^2$
Superíndex i/o subíndex de 2 o més xifres	**text^{num1num2}**	[math]X^{22}[/math] versus [math]X^22[/math]	X^{22} versus $X^2 2$
	text_{num1num2}^{num1num2} **o** **text^{num1num2}_{num1num2}**	[math]X_{33}^{22}[/math]	X_{33}^{22}
Superíndex/subíndex de superíndex/subíndex	**text^{num1^num2}**	[math]X^{2^2}[/math]	X^{2^2}
	Es poden utilitzar els corxets buits {}quan sigui necessari.	[math]X_2{}^3{}_{99}[/math]	$X_2{}^3{}_{99}$

Lletres gregues	[math]\nom_lletra[/math]	\Gamma Γ Γ	\Delta Δ Δ	\Theta Θ Θ
		\Lambda Λ Λ	\Xi Ξ Ξ	\Pi Π Π
		\Sigma Σ Σ	\Upsilon Υ Υ	\Phi Φ Φ
		\Psi Ψ Ψ	\Omega Ω Ω	
		\alpha α α	\beta β β	\gamma γ γ
		\delta δ δ	\epsilon ϵ ϵ	\zeta ζ ζ
		\eta η η	\theta θ θ	\iota ι ι
		\kappa κ κ	\lambda λ λ	\mu μ μ
		\nu ν ν	\xi ξ ξ	\pi π π
		\rho ρ ρ	\sigma σ σ	\tau τ τ
		\upsilon υ υ	\phi ϕ ϕ	\chi χ χ
		\psi ψ ψ	\omega ω ω	
		\varepsilon ε	\vartheta ϑ	\varpi ϖ
		\varrho ϱ	\varsigma ς	\varphi φ
Lletres gregues en majúscules	[math]\Nom_lletra[/math]	[math]\Epsilon[/math]	$\Epsilon$	
		[math]\Theta[/math]	Π	

(La primera lletra va en majúscules)						
	[math]\Pi[/math]	\cdot ·		\times ×		\ast
		\div ÷		\diamond ◊		\pm
		\mp ∓		\oplus ⊕ ⊕		\ominus
		\otimes ⊗ ⊗		\oslash ⊘		\odot
		\bigcirc ◯		\circ ∘		\bullet
		\asymp ≍		\equiv ≡		\subsete
		\supseteq ⊇		\leq ≤		\geq
		\preceq ⪯		\succeq ⪰		\sim
		\approx ≈		\subset ⊂		\supset
		\ll ≪		\gg ≫		\prec
		\succ ≻		\leftarrow ←		\rightarr
		\uparrow ↑		\downarrow ↓		\leftrigh
		\nearrow ↗		\searrow ↘		\simeq
		\Leftarrow ⇐		\Rightarrow ⇒		\Uparrov
		\Downarrow ⇓		\Leftrightarrow ⇔		\nwarro
		\swarrow ↙		\propto ∝		\prime
		\infty ∞		\in ∈		\ni
		\triangle △		\bigtriangledown ▽		\'
		/ /		\forall ∀		\exists
		\neg ¬		\emptyset ∅		\Re
		\Im ℑ		\top ⊤		\bot
		\aleph ℵ		\mathcal{A} 𝒜		....\mathca

Símbols	Miscel.lània	

\cup	∪ ⋃	\cap	∩ ⋂	\uplus	⊎ ⨄
\wedge	∧ ⋀	\vee	∨ ⋁	\vdash	⊢
\dashv	⊣	\lfloor	⌊	\rfloor	⌋
\lceil	⌈	\rceil	⌉	\lbrace	{
\rbrace	}	\langle	⟨	\rangle	⟩
\mid	|	\parallel	‖	\updownarrow	↕
\Updownarrow	⇕	\setminus	\	\wr	≀
\surd	√	\amalg	⨿	\nabla	∇
\int	∫ ∫	\sqcup	⊔ ⨆	\sqcap	⊓
\sqsubseteq	⊑	\sqsupseteq	⊒	\S	§
\dag	†	\ddag	‡	\P	¶
\clubsuit	♣	\Diamond	◇	\Heart	♡
\spadesuit	♠				

±	\pm	∩	\cap	∨	\vee
∓	\mp	∪	\cup	∧	\wedge
\	\setminus	⊎	\uplus	⊕	\oplus
·	\cdot	⊓	\sqcap	⊖	\ominus
×	\times	⊔	\sqcup	⊗	\otimes
∗	\ast	◁	\triangleleft	⊘	\oslash
⋆	\star	▷	\triangleright	⊙	\odot
◇	\diamond	≀	\wr	†	\dagger
∘	\circ	◯	\bigcirc	‡	\ddagger
•	\bullet	△	\bigtriangleup	⨿	\amalg
÷	\div	▽	\bigtriangledown		

Operadors	$\leq$ \leq	$\geq$ \geq	$\equiv$ \equiv				
	$\prec$ \prec	$\succ$ \succ	$\sim$ \sim				
	$\preceq$ \preceq	$\succeq$ \succeq	$\simeq$ \simeq				
	$\ll$ \ll	$\gg$ \gg	$\asymp$ \asymp				
	$\subset$ \subset	$\supset$ \supset	$\approx$ \approx				
	$\subseteq$ \subseteq	$\supseteq$ \supseteq	$\cong$ \cong				
	$\sqsubseteq$ \sqsubseteq	$\sqsupseteq$ \sqsupseteq	$\bowtie$ \bowtie				
	$\in$ \in	$\ni$ \ni	$\propto$ \propto				
	$\vdash$ \vdash	$\dashv$ \dashv	$\models$ \models				
	$\smile$ \smile	$\mid$ \mid	$\doteq$ \doteq				
	$\frown$ \frown	$\parallel$ \parallel	$\perp$ \perp				

Relacions	$\not<$ \not<	$\not>$ \not>	$\neq$ \not=
	$\not\leq$ \not\leq	$\not\geq$ \not\geq	$\not\equiv$ \not\equiv
	$\not\prec$ \not\prec	$\not\succ$ \not\succ	$\not\sim$ \not\sim
	$\not\preceq$ \not\preceq	$\not\succeq$ \not\succeq	$\not\simeq$ \not\simeq
	$\not\subset$ \not\subset	$\not\supset$ \not\supset	$\not\approx$ \not\approx
	$\not\subseteq$ \not\subseteq	$\not\supseteq$ \not\supseteq	$\not\cong$ \not\cong
	$\not\sqsubseteq$ \not\sqsubseteq	$\not\sqsupseteq$ \not\sqsupseteq	$\not\asymp$ \not\asymp

	Fletxes	$\leftarrow$ \leftarrow $\longleftarrow$ \longleftarrow $\Leftarrow$ \Leftarrow $\Longleftarrow$ \Longleftarrow $\leftrightarrow$ \leftrightarrow $\longleftrightarrow$ \longleftrightarrow $\hookleftarrow$ \hookleftarrow $\leftharpoonup$ \leftharpoonup $\leftharpoondown$ \leftharpoondown $\uparrow$ \uparrow $\Uparrow$ \Uparrow $\updownarrow$ \updownarrow $\nearrow$ \nearrow $\searrow$ \searrow $\mapsto$ \mapsto $\rightleftharpoons$ \rightleftharpoons	$\rightarrow$ \rightarrow $\longrightarrow$ \longrightarrow $\Rightarrow$ \Rightarrow $\Longrightarrow$ \Longrightarrow $\Leftrightarrow$ \Leftrightarrow $\Longleftrightarrow$ \Longleftrightarrow $\hookrightarrow$ \hookrightarrow $\rightharpoonup$ \rightharpoonup $\rightharpoondown$ \rightharpoondown $\downarrow$ \downarrow $\Downarrow$ \Downarrow $\Updownarrow$ \Updownarrow $\nwarrow$ \nwarrow $\swarrow$ \swarrow $\longmapsto$ \longmapsto	
	Obertura i tancament	$[$ \lbrack $\lfloor$ \lfloor $\lceil$ \lceil $\{$ \lbrace $\langle$ \langle $]$ \rbrack $\rfloor$ \rfloor $\rceil$ \rceil $\}$ \rbrace $\rangle$ \rangle		
Funcions	**\nom_funció param** **o** **\nom_funció (param1 + param2)**	\arccos \cos \csc \exp \ker \limsup \min \sinh \arcsin \cosh \deg \gcd \lg \ln \Pr \sup \arctan \cot \det \hom \lim \log \sec \tan \arg \coth \dim \inf \liminf \max \sin \tanh		
		[math]\cos \theta [/math]	$\cos\theta$	

		[math]\cos (\theta + \phi) [/math]	$\cos(\theta+\phi)$
Fraccions	**\frac {numerador}{denominador}**	[math]\frac {3}{2} [/math]	$\frac{3}{2}$
		[math]\frac {x-4}{y^3} [/math]	$\frac{x-4}{y^3}$
Arrels quadrades	**\sqrt{expressió}**	[math]\sqrt {4}[/math]	$\sqrt{4}$
		[math]\sqrt {x^2+x/y}[/math]	$\sqrt{x^2+x/y}$
Arrels n	**\sqrt [n] {expressió}**	[math]\sqrt[3] {4}[/math]	$\sqrt[3]{4}$
		[math]\sqrt[3] {q^2+q^3}[/math]	$\sqrt[3]{q^2+q^3}$
Punts aliniats al text	**\ldots**	[math]x,y,\ldots,z[/math]	$x,y,\ldots,z$
Punts aliniats al centre	**\cdots**	[math]x+y+\cdots+z[/math]	$x+y+\cdots+z$
Delimitadors per englobar fòrmules	**Parèntesis**	**\left(... \right)**	[math]\left(\frac{x}{y} \right)[/math]	$\left(\frac{x}{y}\right)$
	Corxets	**\left[... \right]**	[math]\left[\frac{x}{y} \right][/math]	$\left[\frac{x}{y}\right]$
	Claus	**\left\{ ... \right\}**	[math]\left\{ \frac{x}{y} \right\}[/math]	$\left\{\frac{x}{y}\right\}$
	Angles	**\left\langle ... ... \right\rangle**	[math]\left\langle \frac{x}{y} \right\rangle[/math]	$\left\langle\frac{x}{y}\right\rangle$
	Barres dobles	**\left| ... \right|**	[math]\left| \frac{x}{y} \right|[/math]	$\left\|\frac{x}{y}\right\|$
	Barres	**\left| ... \right|**	[math]\left| \frac{x}{y} \right|[/math]	$\left|\frac{x}{y}\right|$
Vectors, signes de	**\vec{expressió}**	[math]\vec{ABC}[/math]	$\vec{ABC}$

puntuació i negacions.	\hat{expressió}	[math]\hat{ABC}[/math]	$\widehat{ABC}$
	\tilde{expressió}	[math]\tilde{a}[/math]	$\tilde{a}$
	\dot{expressió}	[math]\dot\omega[/math]	$\dot\omega$
	\ddot{expressió}	[math]\ddot\omega[/math]	$\ddot\omega$
	\cancel{expressió}	[math]\cancel{ABC}[/math]	$\cancel{ABC}$
	\overline{expressió}	[math]\overline{ABC}[/math]	$\overline{ABC}$
	\underline{expressió}	[math]\underline{ABC}[/math]	$\underline{ABC}$
	\sout{expressió}	[math]\sout{ABC}[/math]	ABC
Aliniament de fòrmules	\begin{eqnarray*} primera_línia \\ segona_línia \end{eqnarray*} (El signe "\\" s'utilitza per a separar les línies de la fòrmula)	[math]\begin{eqnarray*} X = Y \\ = Z \end{eqnarray*} [/math]	$\begin{aligned} X &= Y \\ &= Z \end{aligned}$
Matrius	\begin{array} num11 & num21 & num31 \\ num12 & num22& num33 \\ num11 & num21 & num31 \end{array} (El signe "\\" s'utilitza per a separar les files de la matriu)	[math]\begin{array}a & b & c \\ d & e & f \\ g & h & y \end{array}[/math] versus [math]\left(\begin{array}a & b & c \\ d & e & f \\ g & h & y \end{array} \right)[/math] versus [math]\left| \begin{array}a & b & c \\ d & e & f \\ g & h & y \end{array} \right|[/math]	$\begin{array}{ccc} a & b & c \\ d & e & f \\ g & h & y \end{array}$ versus $\left(\begin{array}{ccc} a & b & c \\ d & e & f \\ g & h & y \end{array} \right)$ versus $\left\| \begin{array}{ccc} a & b & c \\ d & e & f \\ g & h & y \end{array} \right\|$
Derivades	\partial	[math]\frac {\partial u}{\partial t}[/math]	$\frac{\partial u}{\partial t}$

Límits	**\lim_{var1 \to +\infty}**	[math]\lim_{x \to +\infty}[/math]	$\lim\limits_{x \to +\infty}$
	\inf_{var1 > var2}	[math]\inf_{x > s}[/math]	$\inf\limits_{x>s}$
	\sup_VAR1	[math]\sup_K[/math]	$\sup\limits_{K}$
Sumatoris	**\sum_{i=num1}^{expr2}**	[math]\sum_{i=1}^{2n}[/math]	$\sum\limits_{i=1}^{2n}$
Integrals	**\int_var1^var2**	[math] \int_a^b f(x)\,dx [/math]	$\int_a^b f(x)\,dx$
Miscel.lània	**\overbrace{ }^{ }**	[math]\overbrace{a,...,a}^{\text{k a's}} [/math]	$\overbrace{a,...,a}^{k a's}$
	\underbrace{ }_{ }	[math] \underbrace{b,...,b}_{\text{l\hspace{1}b's}} [/math]	$\underbrace{b,...,b}_{l\,b's}$
	\overset{ }{ }	[math] a\hspace{1}\overset{\text{def}}{=} \hspace{1}b\hspace{1}[/math]	$a \overset{\text{def}}{=} b$
	\underset{ }{ }	[math] c\hspace{1}\underset{\text{def}} {=}\hspace{1}d [/math]	$c \underset{\text{def}}{=} d$

Exemples

Si s'introdueix...	Es visualitza...
[math]f(x)g(x)=3x^2+19x+28.[/math]	$f(x)g(x)=3x^2+19x+28.$
[math]ds^2 = dx_1^2 + dx_2^2 + dx_3^2 - c^2 dt^2[/math]	$ds^2=dx_1^2+dx_2^2+dx_3^2-c^2dt^2$
[math]R_i{}^j{}_{kl} = g^{jm} R_{imkl} = - g^{jm} R_{mikl} = - R^j{}_{ikl} [/math]	$R_i{}^j{}_{kl}=g^{jm}R_{imkl}=-g^{jm}R_{mikl}=-R^j{}_{ikl}$
[math] \mathrm Tenim \hspace{1} 3 \hspace{1} vectors \hspace{1} \mathbf u \mathrm, \hspace{1} \mathbf v \mathrm, \hspace{1} i \mathbf w \hspace{1} \mathrm en \hspace{1} \mathbf R^3.[/math]	$\mathrm{Tenim\ 3\ vectors\ }\mathbf{u},\mathbf{v},i\,\mathbf{w}\mathrm{\ en\ }\mathbf{R}^3.$
[math]\cos(\theta + \phi) = \cos \theta \cos \phi - \sin \theta \sin \phi[/math]	$\cos(\theta+\phi)=\cos\theta\cos\phi-\sin\theta\sin\phi$
[math]\mathrm{cosec} A[/math]	$\mathrm{cosec}\,A$
[math]cosec A[/math]	$cosec\,A$
[math]f(x)=0 \mbox{ per a tot } \in M [/math]	$f(x)=0\mbox{ per a tot }\in M$
[math]M^\bot = \{ f \in V' : f(m) = 0 \mbox{ per a tot } m \in M \}.[/math]	$M^\bot=\{f\in V':f(m)=0\mbox{ per a tot }m\in M\}.$
[math]\mbox{La funcio \mathbf{f(x)} es defineix per \[f(x) = 2x + \frac{x - 7}{x^2 + 4}\] \forall \mathbf x}[/math]	$\mbox{La funcio }\mathbf{f(x)}\mbox{ es defineix per }\left[f(x)=2x+\frac{x-7}{x^2+4}\right]\forall\mathbf{x}$
[math] \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}[/math]	$\frac{-b\pm\sqrt{b^2-4ac}}{2a}$
[math]\sqrt[3]{q + \sqrt{ q^2 - p^3 }} + \sqrt[3]{q - \sqrt{ q^2 - p^3 }} [/math]	$\sqrt[3]{q+\sqrt{q^2-p^3}}+\sqrt[3]{q-\sqrt{q^2-p^3}}$
[math]f(x_1, x_2,\ldots, x_n) = x_1^2 + x_2^2 + \cdots + x_n^2[/math]	$f(x_1,x_2,\ldots,x_n)=x_1^2+x_2^2+\cdots+x_n^2$
[math]\parallel f\parallel = \inf \{ K \in [0,+\infty) : |f(x)| \leq K |x| \hspace{2} \forall x \in X \}.[/math]	$\|f\|=\inf\{K\in[0,+\infty):\|f(x)\|\leq K\|x\|\ \forall x\in X\}.$
[math]f(x,y,z) = 3y^2 z \left(3 + \frac{7x+5}{1 + y^2} \right)[/math]	$f(x,y,z)=3y^2z\left(3+\frac{7x+5}{1+y^2}\right)$

[math]\left| 4 x^3 + \left(x + \frac{42}{1+x^4} \right) \right|[/math]	$\left\|4x^3+\left(x+\frac{42}{1+x^4}\right)\right\|$
[math]\left. \frac{du}{dx} \right|_{x=0}[/math]	$\left.\frac{du}{dx}\right\|_{x=0}$
[math]\begin{eqnarray*} \cos 2\theta & = & \cos^2 \theta - sin^2 \theta \\& = & 2 \ \cos^2 \theta -1 \end{eqnarray*}[/math] (El signe "&" s'utilitza com a tabulador)	$\begin{aligned}\cos 2\theta &= \cos^2\theta - \sin^2\theta \\ &= 2\cos^2\theta - 1\end{aligned}$
[math]\chi(\lambda) = \left| \begin{array}{ccc}\lambda - a & -b & -c \\d & \lambda - e & f \\-g & -h & \lambda - i \end{array} \right|[/math]	$\chi(\lambda)=\begin{vmatrix}\lambda-a & -b & -c \\ d & \lambda-e & f \\ -g & -h & \lambda-i\end{vmatrix}$
[math]\begin{array}{lcr}\mbox{Primer numero} & x & 8 \\ \mbox{Segon numero} & y & 15 \\ \mbox{Suma} & x + y & 23 \\ \mbox{Diferencia} & x - y & -7 \\ \mbox{Producte} & xy & 120 \end{array}[/math]	$\begin{array}{lcr}\text{Primer numero} & x & 8 \\ \text{Segon numero} & y & 15 \\ \text{Suma} & x+y & 23 \\ \text{Diferencia} & x-y & -7 \\ \text{Producte} & xy & 120\end{array}$
[math]|x| = \left\{ \begin{array}{ll}x & \mbox{if x \geq 0};\\ -x & \mbox{if x < 0}.\end{array} \right[/math]	$\|x\|=\begin{cases}x & \text{if } x \geq 0; \\ -x & \text{if } x < 0.\end{cases}$
[math]\frac{\partial u}{\partial t} = h^2 \left(\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} + \frac{\partial^2 u}{\partial z^2} \right)[/math]	$\frac{\partial u}{\partial t}=h^2\left(\frac{\partial^2 u}{\partial x^2}+\frac{\partial^2 u}{\partial y^2}+\frac{\partial^2 u}{\partial z^2}\right)$
[math]\lim_{x \to 0} \frac{3x^2 +7x^3}{x^2 +5x^4} = 3[/math]	$\lim_{x \to 0}\frac{3x^2+7x^3}{x^2+5x^4}=3$
[math]\sum_{k=1}^n k^2 = \frac{1}{2} n (n+1)[/math]	$\sum_{k=1}^{n}k^2=\frac{1}{2}n(n+1)$
[math]\int_0^{+\infty} x^n e^{-x} \,dx = n![/math]	$\int_0^{+\infty}x^n e^{-x}\,dx=n!$

[math]\int \cos \theta \,d\theta = \sin \theta[/math]	$$\int \cos\theta \, d\theta = \sin\theta$$
[math]\int_{x^2 + y^2 \leq R^2} f(x,y)\,dx\,dy = \int_{\theta=0}^{2\pi} \int_{r=0}^R f(r\cos\theta,r\sin\theta) r\,dr\,d\theta[/math]	$$\int_{x^2+y^2\leq R^2} f(x,y)\,dx\,dy = \int_{\theta=0}^{2\pi}\int_{r=0}^{R} f(r\cos\theta,r\sin\theta)r\,dr\,d\theta$$
[math]\int_0^R \frac{2x\,dx}{1+x^2} = \log(1+R^2)[/math]	$$\int_0^R \frac{2x\,dx}{1+x^2} = \log(1+R^2)$$
[math]\int_0^1 \! \int_0^1 x^2 y^2\,dx\,dy[/math]	$$\int_0^1 \! \int_0^1 x^2 y^2\,dx\,dy$$
[math]\int \!\!\! \int_D f(x,y)\,dx\,dy[/math]	$$\int\!\!\!\int_D f(x,y)\,dx\,dy$$
[math]A_{u_i,v_j}^{k_m^n}[/math]	$$A_{u_i,v_j}^{k_m^n}$$
[math](\frac1{\sqrt2}x+y) (\frac1{\sqrt2}x-y)[/math]	$$\left(\frac{1}{\sqrt2}x+y\right)\left(\frac{1}{\sqrt2}x-y\right)$$
[math]x=1\\y=2\\z=3[/math]	$$x=1 \\ y=2 \\ z=3$$
[math]y=\left\{x/2\text{ if x even}\\(x+1)/2\text{ if odd}\right[/math]	$$y=\begin{cases} x/2 \text{ if x even} \\ (x+1)/2 \text{ if odd} \end{cases}$$

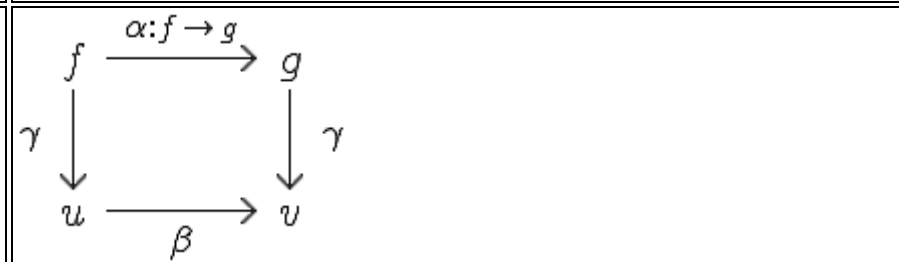|	
[math]\Large A\ =\ \large\left(\begin{array}{c.cccc}&1&2&\cdots&n\\ \hdash1&a_{11}&a_{12}&\cdots&a_{1n}\\ 2&a_{21}&a_{22}&\cdots&a_{2n}\\ \vdots&\vdots&\vdots&\ddots&\vdots\\ n&a_{n1}&a_{n2}&\cdots&a_{nn}\end{array}\right)[/math]	$A \;=\; \left(\begin{array}{c:cccc} & 1 & 2 & \cdots & n \\ \hline 1 & a_{11} & a_{12} & \cdots & a_{1n} \\ 2 & a_{21} & a_{22} & \cdots & a_{2n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ n & a_{n1} & a_{n2} & \cdots & a_{nn} \end{array} \right)$
[math]\normalsize \left(\large\begin{array}{GC+23} \varepsilon_x\\\varepsilon_y\\\varepsilon_z\\\gamma_{xy}\\ \gamma_{xz}\\\gamma_{yz}\end{array}\right)\ {\Large=} \ \left[\begin{array}{CC} \begin{array}\frac1{E_{\fs{+1}x}} &-\frac{\nu_{xy}}{E_{\fs{+1}x}} &-\frac{\nu_{\fs{+1}xz}}{E_{\fs{+1}x}}\\ -\frac{\nu_{yx}}{E_y}&\frac1{E_{y}}&-\frac{\nu_{yz}}{E_y}\\ -\frac{\nu_{\fs{+1}zx}}{E_{\fs{+1}z}}& -\frac{\nu_{zy}}{E_{\fs{+1}z}} &\frac1{E_{\fs{+1}z}}\end{array} & {\LARGE 0} \\ {\LARGE 0} & \begin{array}\frac1{G_{xy}}&&\\ &\frac1{G_{\fs{+1}xz}}&\\&&\frac1{G_{yz}}\end{array} \end{array}\right] \ \left(\large\begin{array} \sigma_x\\\sigma_y\\\sigma_z\\\tau_{xy}\\\tau_{xz}\\\tau_{yz} \end{array}\right)[/math]	$\begin{pmatrix} \epsilon_x \\ \epsilon_y \\ \epsilon_z \\ \gamma_{xy} \\ \gamma_{xz} \\ \gamma_{yz} \end{pmatrix} = \left[\begin{array}{cccccc} \frac{1}{E_x} & -\frac{\nu_{xy}}{E_x} & -\frac{\nu_{xz}}{E_x} & & & \\ -\frac{\nu_{yx}}{E_y} & \frac{1}{E_y} & -\frac{\nu_{yz}}{E_y} & & 0 & \\ -\frac{\nu_{zx}}{E_z} & -\frac{\nu_{xy}}{E_z} & \frac{1}{E_z} & & & \\ & & & \frac{1}{G_{xy}} & & \\ & 0 & & & \frac{1}{G_{xz}} & \\ & & & & & \frac{1}{G_{yz}} \end{array} \right] \begin{pmatrix} \sigma_x \\ \sigma_y \\ \sigma_z \\ \tau_{xy} \\ \tau_{xz} \\ \tau_{yz} \end{pmatrix}$
[math]\Large\begin{array}{rccclBCB} &f&\longr[75]^{\alpha:{\normalsize f\rightar~g}}&g\\ \large\gamma&\longd[50]&&\longd[50]&\large\gamma\\ &u&\longr[75]_\beta&v\end{array}[/math]	
[math]\Large\scr{J}^{i0}=+\frac i2 \left[\begin{array}{cc}\sigma_i&0\\0&-\sigma_i\end{array}\right] \hspace{10}\scr{J}^{ij}=\frac12\varepsilon_{ijk} \left[\begin{array}{cc}\sigma_k&0\\0&\sigma_k\end{array}\right][/math]	$\mathscr{J}^{i0}=+\frac{i}{2}\begin{bmatrix}\sigma_i & 0 \\ 0 & -\sigma_i\end{bmatrix} \quad \mathscr{J}^{ij}=\frac12\varepsilon_{ijk}\begin{bmatrix}\sigma_k & 0 \\ 0 & \sigma_k\end{bmatrix}$

[math]\small\hspace{10}\unitlength{.75}
\picture(120,220){~(60,200){\circle(120,40)}~(0,20){\line(0,180)} (5,189;0,-30){\pict(110,20){(c20,10;70;2){
\pict(40,20){(20,10){\circle(40,20)}(c10,10)+(c30,10)-}}~}~}
(119,20){\line(0,180)}~(60,20){\circle(120,40;34)}}[/math]