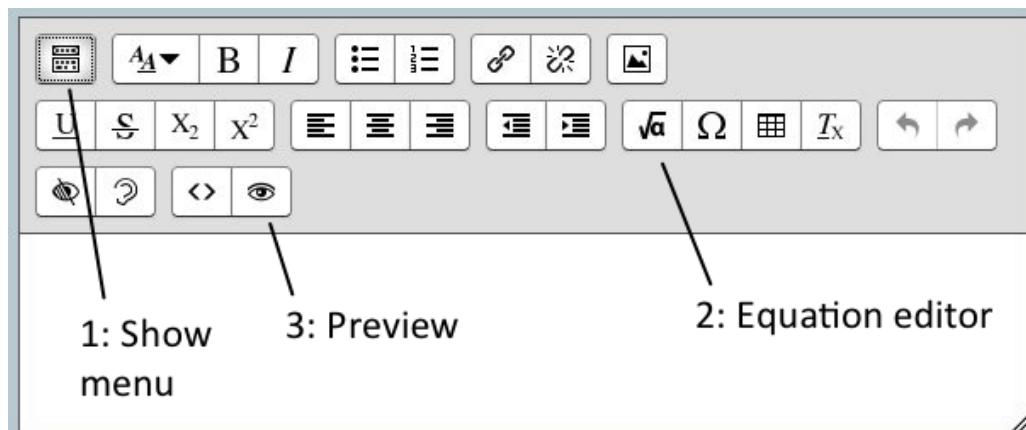


TeX/LaTeX cheat sheet. 3/2/2016 Halverson

I used <http://www.forkosh.com/mimetextutorial.html> to generate these examples. This is a good source of information.

Moodle starts Latex math mode with “(“ and ends Latex math mode with “)”	y is x squared \(\text{y=x}^2\) z is x cubed \(\text{z=x}^3\)	y is x squared: $y = x^2$ z is x cubed: $z = x^3$
$y = x^2$	$\text{y=x}^2$	$y = x_0$
$y = \frac{1}{x}$	$\text{y=}\frac{1}{\text{x}}$	$x = \sqrt{a}$
$\Delta t$	\Delta t	$R = 500\Omega$
$\alpha\beta\gamma\lambda\theta\phi$	\alpha \beta \gamma \lambda \theta \phi	Degrees: $90^\circ$
$\sin^2(\theta) + \cos^2(\theta) = 1$		$\sin^2(\theta)+\cos^2(\theta)=1$
$\vec{x}$	\vec{x}	$\vec{F} = m\vec{a}$
$\sum_{i=1}^n i$	\sum_{i=1}^n i	$\int_{x_0}^{x_1} f(x) dx$
Units need to be in non-math mode. Use the \text{} command		
$V = 5$ Volts	$V=5\text{ Volts}$	$KE = 8$ Joules
Error = $\pm 5$ mm	\text{Error}=\pm 5 \text{mm}	$\pm$



## Answers to the Tex/Latex Practice in Moodle.

(Answers are scrambled)

$$I = \frac{V}{R} = \frac{50 \text{ Volts}}{100 \Omega} = \frac{1}{2} \text{ Amps}$$

$$\begin{aligned} Q &= m C_P \Delta T = (1 \text{ kg})(1000 \text{ cal/kg})(15^\circ \text{C}) \\ &= 15000 \text{ calories} \end{aligned}$$

$$\frac{x^2 a^2}{x^2 + a^2} \rightarrow \frac{8 \text{ cm}^2}{8 \text{ cm}^2 + a^2} \rightarrow \frac{8}{8 + a^2}$$

$$\begin{aligned} R_{\text{eff}} &= \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{m}} = \frac{1}{\frac{1}{10 \Omega} + \frac{1}{2} + \frac{1}{2}} \\ &= 2.353 \text{ Ohms} \end{aligned}$$

$$\begin{aligned} d &= d_0 + v_0 t + \frac{1}{2} a t^2 \\ &= 0 + (20 \frac{\text{m}}{\text{s}})t + \frac{1}{2}(5 \frac{\text{m}}{\text{s}^2})t^2(100 \text{ s}^2) \\ &= 27000 \text{ meters} \end{aligned}$$

Don't forget that Moodle starts Latex math mode with “\” and ends Latex math mode with “\”

The \ and \ should be in the answer box, but not in the math editor.