Math via LaTeX in Piazza

January 12, 2016

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Square roots

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Square roots

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$\sqrt{\pi}$

\$\$\sqrt{\pi}\$\$

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Square root in a sentence

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Square root in a sentence

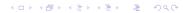
Here is $\sqrt{\pi}$ in a sentence.



Square root in a sentence

Here is $\sqrt{\pi}$ in a sentence.

 $\texttt{Here}_{is} \ \texttt{sqrt} \ \texttt{here}_{ial} \ \texttt{here}_{alsentence}.$



A displayed formula

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A displayed formula

Here is a displayed formula

$$\sqrt{\pi^2+1}$$

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in the middle of text.

A displayed formula

Here is a displayed formula

$$\sqrt{\pi^2+1}$$

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in the middle of text.

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Here_{\sqcup}is_{\sqcup}a_{\sqcup}displayed_{\sqcup}formula
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\$\$\sqrt{\pi^2+1}\$\$

 $in_{\sqcup}the_{\sqcup}middle_{\sqcup}of_{\sqcup}text.$

Fractions

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Fractions



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Fractions

$\frac{x^2+1}{x^2-1}$

$\frac{x^2+1}{x^2-1}$

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Square roots of big hairy fractions

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Square roots of big hairy fractions

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Square roots of big hairy fractions

$$\sqrt{\frac{x^2+1}{x^2-1}}$$

$\frac{x^2+1}{x^2-1}$

Integrals

Integrals

 $\int f(x) dx$

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Integrals

$\int f(x) dx$

 $\hat{x} \in (x) , dx$



More definite integrals

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More definite integrals

$$\int_a^b f(x) \, dx = F(b) - F(a)$$

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More definite integrals

$$\int_a^b f(x) \, dx = F(b) - F(a)$$

 $\hat{t}_a^b_f(x)_{dx=F(b)_{du}-F(a)}$

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Sine and Cosine

Sine and Cosine

 $\sin^2\theta + \cos^2\theta \equiv 1$

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$$\sin^2\theta + \cos^2\theta \equiv 1$$

\$\$\sin^2\theta+\cos^2\theta\equiv1\$\$



Something more complex

Something more complex

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$$e^{-\pi i} + 1 = 0$$

Something more complex

$$e^{-\pi i} + 1 = 0$$

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Calculus!

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Calculus!

 $\iint_{\Omega} f \, dx \wedge dy$



Calculus!

$\iint_{\Omega} f \, dx \wedge dy$

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More calculus

More calculus



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More calculus



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Real and complex

Real and complex

 $\mathbb{R}^n \subset \mathbb{C}^n$

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Real and complex

 $\mathbb{R}^n \subset \mathbb{C}^n$

 ${\rm R}^n \sum_{n \in \mathbb{C}^n$



Curly brackets

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Curly brackets

 $\Omega_n \subset \Omega_{n+1}$



Curly brackets

$\Omega_n \subset \Omega_{n+1}$

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A set

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$\{x \in (0,1) : x \text{ is irrational}\}$

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$\{x \in (0,1) : x \text{ is irrational}\}$

$\ (x\in(0,1)\,:\,x\text\{\in(0,1)\)$

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Sums and products

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Sums and products

$$\sum_{n=0}^{\infty}a_nz^n=\prod_{n=0}^{\infty}(1-\frac{z}{b_n})$$

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Sums and products

$$\sum_{n=0}^{\infty} a_n z^n = \prod_{n=0}^{\infty} (1 - \frac{z}{b_n})$$

 $s_n=0}\infty_a_n_z^n=\n=0}\infty(1-\frac{z}{b_n})$

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Big parentheses

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Big parentheses



Big parentheses

$$\left(\frac{x^2-1}{x^2+1}\right)$$

$\ (\rac{x^2-1}{x^2+1})\$

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Limits

Limits



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Limits

$\lim_{x\to 0}\frac{\sin x}{x}=1$

$\ \ x\t_x=1\$

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Inequalities

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Inequalities

$1 < 2 \leq x \neq y$

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Inequalities

$1 < 2 \le x \neq y$

 $1<2\le_x\ne_y$



Numbered equations

The rest of the examples are for LaTeX outside of Piazza in something like a paper or thesis.

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$$\pi = 3 \tag{1}$$

Equation 1 is only true in parts of Ohio.



Numbered equations

The rest of the examples are for LaTeX outside of Piazza in something like a paper or thesis.

$$\pi = 3 \tag{1}$$

Equation 1 is only true in parts of Ohio.

```
\begin{equation}
\label{crazy}
\pi=3
\end{equation}
```

 $Equation_{\cup} ref\{crazy\}_{\cup} is_{\cup} only_{\cup} true_{\cup} in_{\cup} parts_{\cup} of_{\cup} Ohio.$

Theorems

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Theorems

Theorem 1 $\sqrt{2}$ is an irrational number.

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Isn't Theorem 1 lovely!

Theorems

Theorem 1 $\sqrt{2}$ is an irrational number.

Isn't Theorem 1 lovely!

```
\begin{theorem}
\label{abiggy}
$\sqrt{2}$_is_an_irrational_number.
\end{theorem}
```

 $Isn't_{\sqcup}Theorem_{\sqcup}\ref{abiggy}_{\sqcup}lovely!$

References

References

Steve Bell's best theorem appears in his paper [1].

[1] S. Bell, Unique continuation theorems for the $\bar{\partial}$ -operator and applications, J. of Geometric Analysis **3** (1993), 195–224.

References

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\bibitem{best}
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$\bar\partial$-operator_and_applications},
J._of_Geometric_Analysis_{\bf_3}(1993),
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