A Minimal Article

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Abstract

This is a very short article, but it still exercises some advanced features of MathBook XML.

This is a short paragraph to introduce the article (but it is not the abstract). It is optional, in case it would be preferable to have the first section be titled an "Introduction."

1 Just Some Text

Now a single paragraph inside a titled section of the article.

2 A Bit More Interesting

The previous section (Section 1) was a bit boring.

This paragraph has some inline math, a Diophantine equation, $x^2 + 2y^2 = z^2$. And some display math about infinite series:

$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}.$$

Look at the XML source to see how LaTeX macros are employed universally across all possible output formats.

AIM Challenge #4 A linear system...

$$\begin{aligned} a_{11}x_1 &+ a_{12}x_2 &&+ \ldots + a_{1n}x_n &&= b_1 \\ a_{21}x_1 &+ a_{22}x_2 &&+ \ldots + a_{2n}x_n &&= b_1 \\ \vdots &\quad \vdots &&\ddots \quad \vdots &&= \vdots \\ a_{m1}x_1 &+ a_{m2}x_2 &&+ \ldots + a_{mn}x_n &&= b_m. \end{aligned}$$

3 Computation

The following is a chunk of Sage code. Your output format will dictate what you see next. In print, you will see expected output. In HTML you will have an executable, and editable, Sage Cell to work with. In a SageMathCloud worksheet, you will be able to execute and edit the code with all the other features of SageMathCloud. Note that if you include the expected output in your source, then you can test the example to verify that the behavior of Sage has not changed.

```
A = matrix(4,5, srange(20))
A.rref()
```

```
[ 1  0 -1 -2 -3]
[ 0  1  2  3  4]
[ 0  0  0  0  0]
[ 0  0  0  0  0]
```