

All examples in this test should be successfully parsed by LaTeXML's grammar, and are meant as regression tests.

## 1 sanity check

1.  $1 + 1 = 2$

## 2 Factor

### 2.0.1 Empty Balanced

1.  $()$
2.  $[]$
3.  $\{\}$
4.  $\langle \rangle$
5.  $\llbracket \rrbracket$
6.  $\sqcup$

### 2.0.2 Single Factor production and Monomials

1.  $\times x$
2.  $|x$
3.  $\sin$
4.  $\arcsin$
5.  $\neg$
6.  $\frac{1}{2}x$
7.  $_a$
8.  $12^3$
9.  $\int$
10.  $\int x$
11.  $\int x \, dx$
12.  $\sum$
13.  $\sum x$
14.  $\{x \mid x > 0\}$

15.  $||x||$
16.  $|a|$
17.  $\langle\phi|$
18.  $|\psi\rangle$
19.  $\langle\phi|\psi\rangle$
20.  $xyz$
21.  $\sqrt{x}\sqrt{y}$
22.  $()\{\}\{()\}$
23.  $2|ab|$
24.  $||x||a||y||$

### 2.0.3 Arrays

1. standalone cases

$$\begin{Bmatrix} cca & b \\ c & d \end{Bmatrix}$$

2. standalone array

$$\begin{array}{cc} a & b \\ c & d \end{array}$$

3. lbrace array

$$\left\{ \begin{array}{cc} a & b \\ c & d \end{array} \right.$$

4. rbrace array

$$\begin{array}{cc} a & b \\ c & d \end{array} \right\}$$

## 3 Advanced Scripted

1.  $\int_0^\infty x^2 dx$
2.  $\sum_{i=0}^{50} x^i$

## 4 Advanced Fenced

1.  $\langle a, b \rangle$
2.  $\langle ab \rangle$
3.  $\langle a \rangle$

## 5 Polynomial

1.  $ab + cd - ef + gh$
2.  $|A\rangle = |B\rangle + |C\rangle$

## 6 Edge/Artefact Cases

- 1.