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.
- 6.

2.0.2 Single Factor production and Monomials

- $1. \times x$
- 2. |x
- $3. \sin$
- 4. arcsin
- 5. ¬
- 6. $\frac{1}{2}x$
- 7. _a
- 8. 12^3
- 9. ∫
- 10. $\int x$
- 11. $\int x \, dx$
- 12. <u>\sum_{1}</u>
- 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

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

2. standalone array

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

3. lbrace array

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

4. rbrace array

$$\begin{pmatrix} a & b \\ a & d \end{pmatrix}$$

3 Advanced Scripted

- 1. Na⁺
- 2. ψ''
- $3. \int_0^\infty x^2 dx$
- $4. \int_{\infty}^{(0+)} t \, dt$
- 5. $\int_{\infty}^{(1+,0+,1,0)} t \, dt$
- 6. $\sum_{i=0}^{50} x^i$

4 Advanced Fenced

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

5 Polynomial and multi-relations

- $1. \ ab + cd ef + gh$
- 2. $|A\rangle = |B\rangle + |C\rangle$
- $3. \ 1 \le l < j \le n$
- $4. \ 1 < x < 10, 2 < y < 20, 3 < z < 30$
- 5. $a, b \alpha + \frac{1}{\alpha}$

6 Modifier Expressions

- 1. > 0
- 2. (> 0)
- 3. x(>0)
- 4. $h(\in C)$
- 5. x: Integer
- 6. $f: \text{Integer} \Rightarrow \text{Real}$

7 Edge/Artefact Cases

1.