1 Test eval of pgfmathparse

1.1 Input precision

1.2 simple infix arithmetic

 $\begin{array}{c} 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 1.00001 \\ 1.00002 = 1.00002 \\ 1.00002 = 1.00002 \\ 1.0$

1.3 unary signs

 $0 \\ 0.0 \\ 0.0$

```
10
-10.0
10.0
-10.0
0.1
-0.1
```

-16383.0

1.4 int

1.5 Unit arithmetic

3.0 3.5 3.05 3.005 3.0005 3.00005 3.0 3.0 5.5 5.0 5.0

20.0

1.6 Precision multiplication

20.0 20.0 20.20001 = 20.20001 20.01999 = 20.01999 20.00201 = 20.00201

```
20.00021 = 20.00021

20.00003 = 20.00003

20.0

20.0

20.0
```

1.7 Factorials

 $\begin{array}{c} 1.0 \\ 1.0 \\ 2.0 \\ 6.0 \\ 24.0 \\ 120.0 \\ 720.0 \\ 5040.0 \end{array}$

1.8 Function bare args

cos left: 0.80902 cos right:-0.2 cos precedence: -0.2

sin cos right: -0.01746 = -0.01746sin cos precedence: -0.01746 = -0.01746

1.9 Figure test

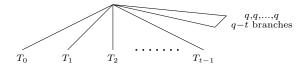


Figure 1: The root of a tree diagram for ${\mathcal C}$