

15/10/25
~~Weekend~~
Wednesday

① 27, 176, 22, 53, 77, 74, 177, 215, 200, 183, 227, 111, 77, 128, 124,
 66, 94, 91, 232, 44, 53, 114, 71, 234, 98, 72, 106, 71, 231, 97, 203,
 32, 15

$\langle e \rangle ::= (\langle o \rangle \langle e \rangle \langle e \rangle) | (\langle u \rangle \langle e \rangle) | \langle v \rangle$
 $\langle o \rangle ::= + | - | / | *$
 $\langle u \rangle ::= \sin | \cos | \tan$
 $\langle v \rangle ::= x | y$

\Rightarrow ① $\langle e \rangle$ expand

$27 \bmod 3 = 0$
 we choose $\langle o \rangle \langle e \rangle \langle e \rangle$

\Rightarrow expand $\langle o \rangle$

$176 \bmod 4 = 0$
 we choose $+$ $\Rightarrow + \langle e \rangle \langle e \rangle$

\Rightarrow expand next $\langle e \rangle$

$22 \bmod 3 = 1$
 we choose $\langle u \rangle \langle e \rangle \Rightarrow + (\langle u \rangle \langle e \rangle) \langle e \rangle$

\Rightarrow expand $\langle u \rangle$

$53 \bmod 3 = 2$
 we choose $\tan \Rightarrow + (\tan \langle e \rangle) \langle e \rangle$

\Rightarrow expand $\langle e \rangle$

$77 \bmod 3 = 2$
 we choose $\langle v \rangle \Rightarrow + (\tan \langle v \rangle) \langle e \rangle$

\Rightarrow expand $\langle v \rangle$

$74 \bmod 2 = 0$
 we choose $x \Rightarrow + (\tan x) \langle e \rangle$

\Rightarrow expand $\langle e \rangle$

$177 \bmod 3 = 0$
 we choose $\langle o \rangle \langle e \rangle \langle e \rangle \Rightarrow + (\tan x) (\langle o \rangle \langle e \rangle \langle e \rangle)$

\Rightarrow expand $\langle o \rangle$

$215 \bmod 4 = 3$, we choose $*$ $\Rightarrow + (\tan x) (* \langle e \rangle \langle e \rangle)$

\Rightarrow expand $\langle e \rangle$

$$200 \bmod 3 = 2$$

we choose $\langle v \rangle \Rightarrow +(\tan x) (* \langle v \rangle \langle e \rangle)$

\Rightarrow expand $\langle v \rangle$

$$183 \bmod 2 = 1$$

we choose $y \Rightarrow +(\tan x) (* y \langle e \rangle)$

\Rightarrow expand $\langle e \rangle$

$$229 \bmod 3 = 1$$

we choose $\langle u \rangle \langle e \rangle \Rightarrow +(\tan x) (* y (\langle u \rangle \langle e \rangle))$

\Rightarrow expand $\langle u \rangle$

$$111 \bmod 3 = 0$$

we choose $\sin \Rightarrow +(\tan x) (* y (\sin \langle e \rangle))$

\Rightarrow expand $\langle e \rangle$

$$77 \bmod 3 = 2$$

\Rightarrow we choose $\langle v \rangle \Rightarrow +(\tan x) (* y (\sin \langle v \rangle))$

\Rightarrow expand $\langle v \rangle$

$$124 \bmod 2 = 0$$

we choose $x \Rightarrow +(\tan x) (* y (\sin x))$

Final answer $\Rightarrow (+(\tan x) (* y (\sin x)))$