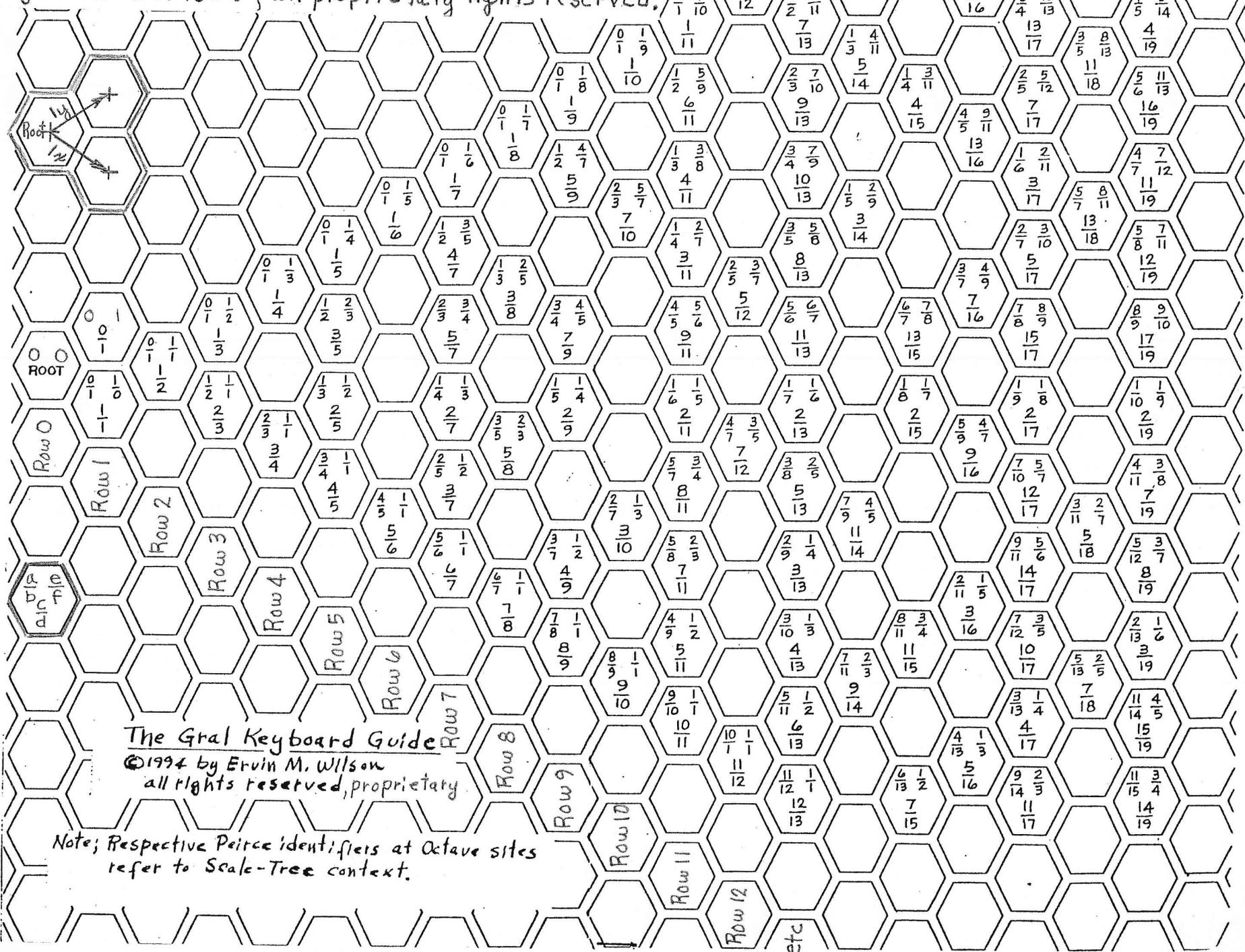


# DIOPHANTINE TRIPLETS and $x, y$ Coordinates, Applied to the GRAL KEYBOARD, Co-Prime Format.

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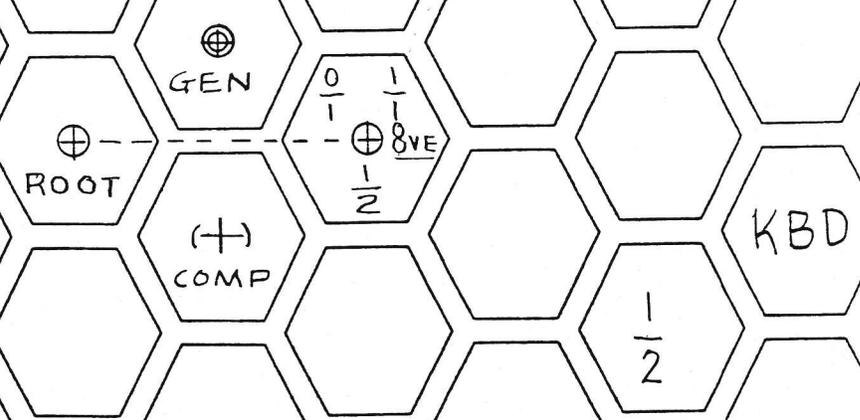
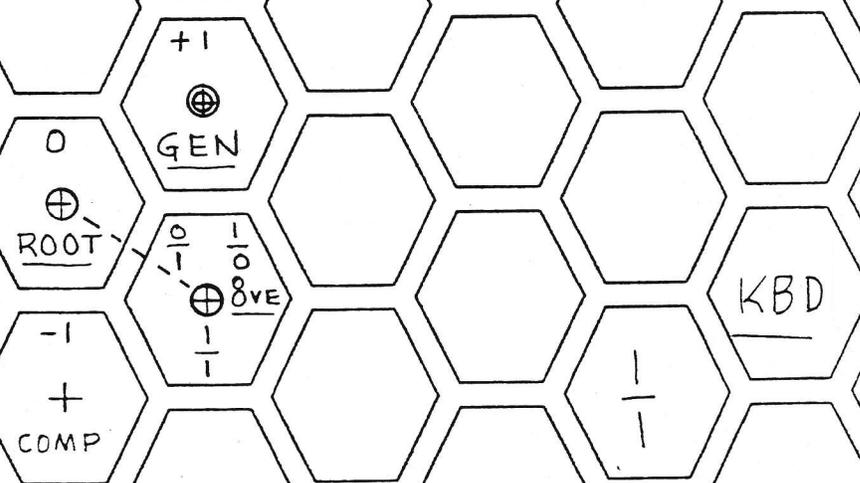


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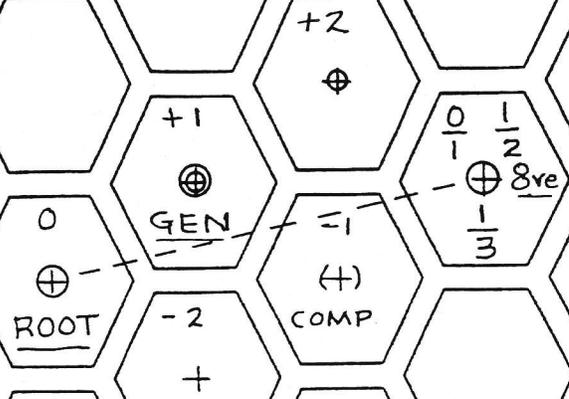
Note; Respective Peirce identifiers at Octave sites  
refer to Scale-Tree context.

# A Spectrum of Keyboards from the Gral Keyboard Guide To Peirce State 6 on the Scale-Tree

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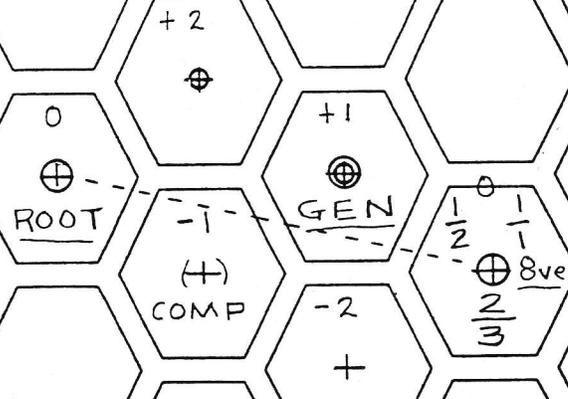


16  
sheets



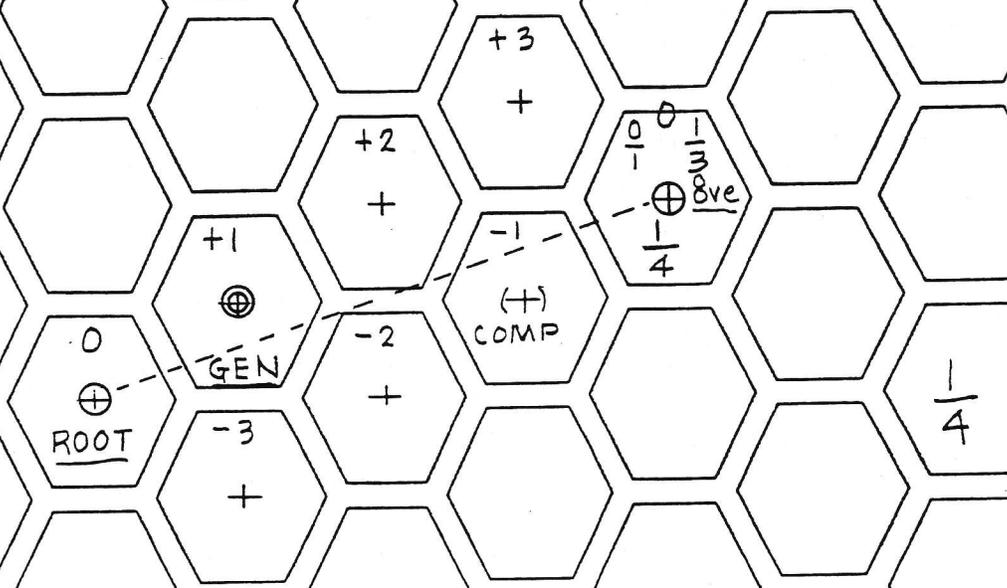
KBD

1/3



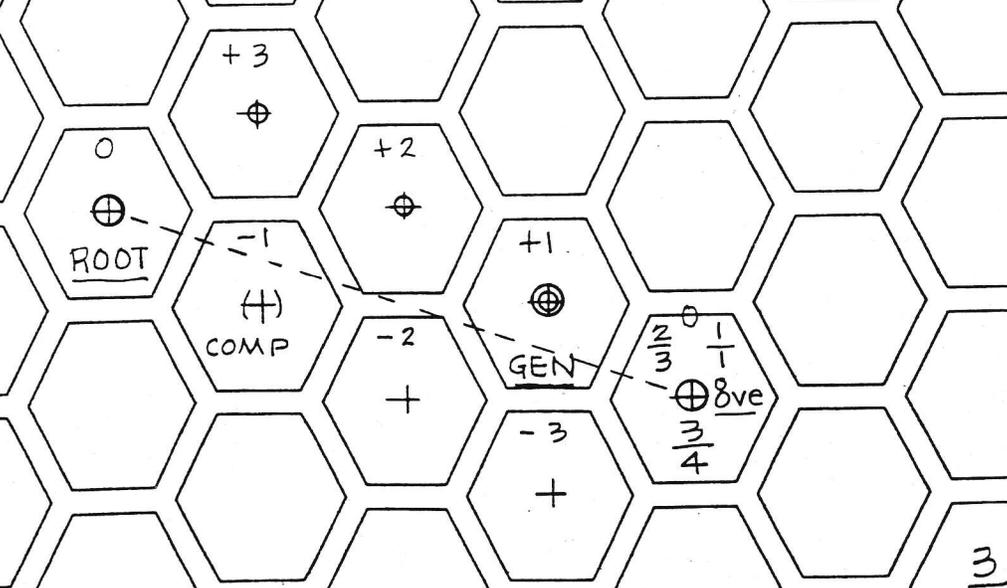
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2/3



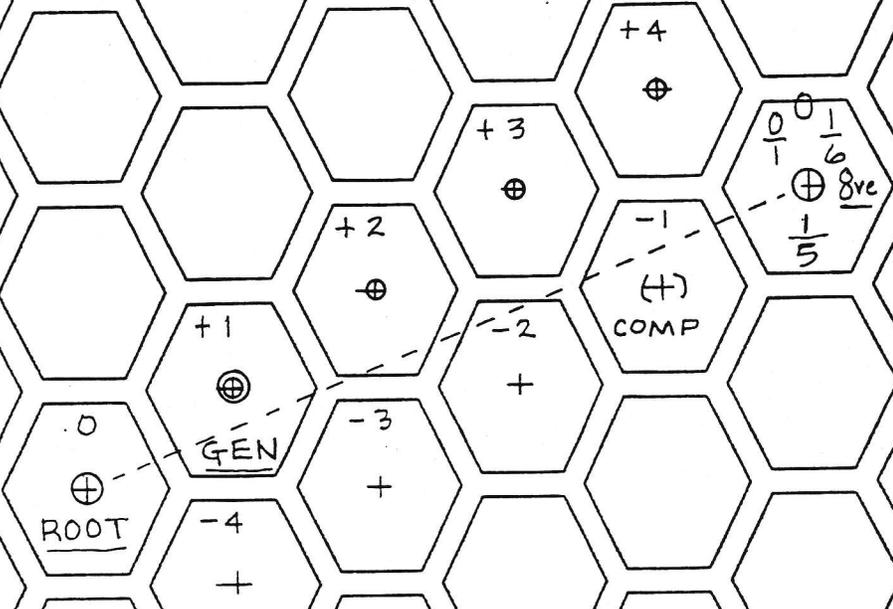
KBD

$\frac{1}{4}$



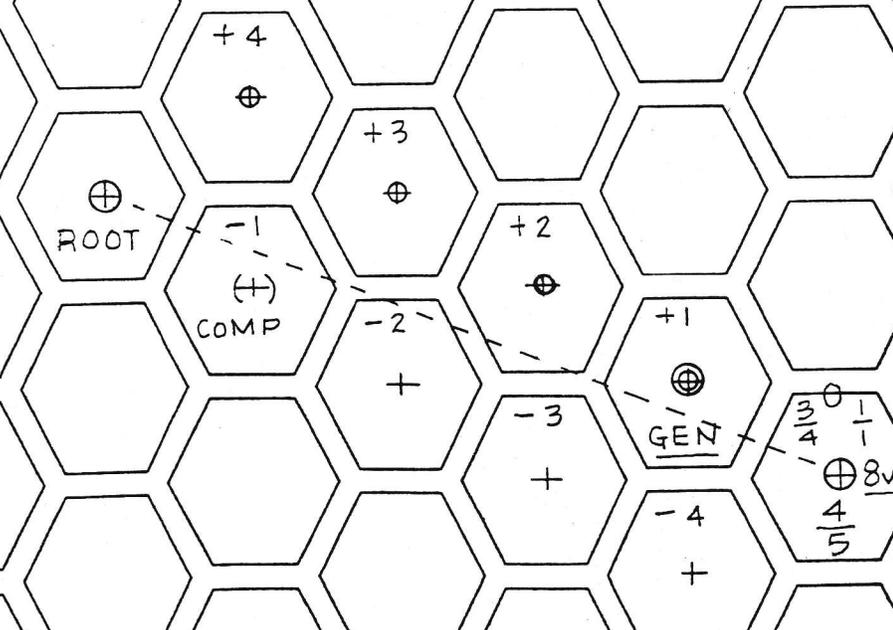
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$\frac{3}{4}$



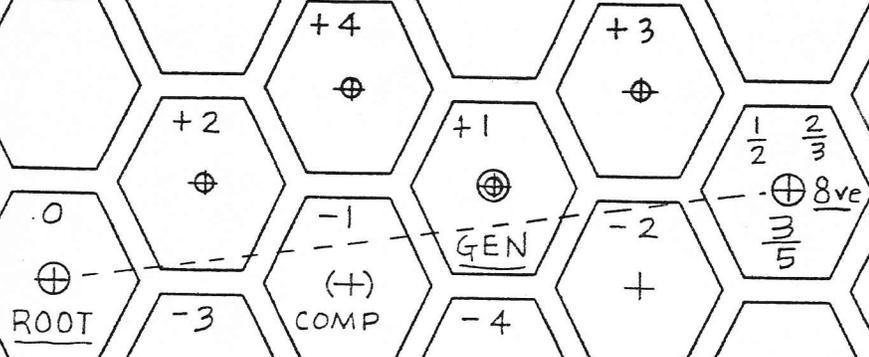
KBD

$\frac{1}{5}$



KBD

$\frac{4}{5}$

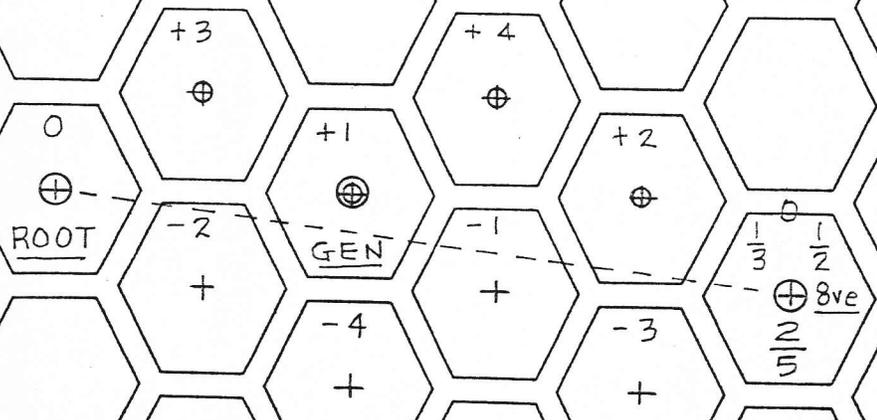


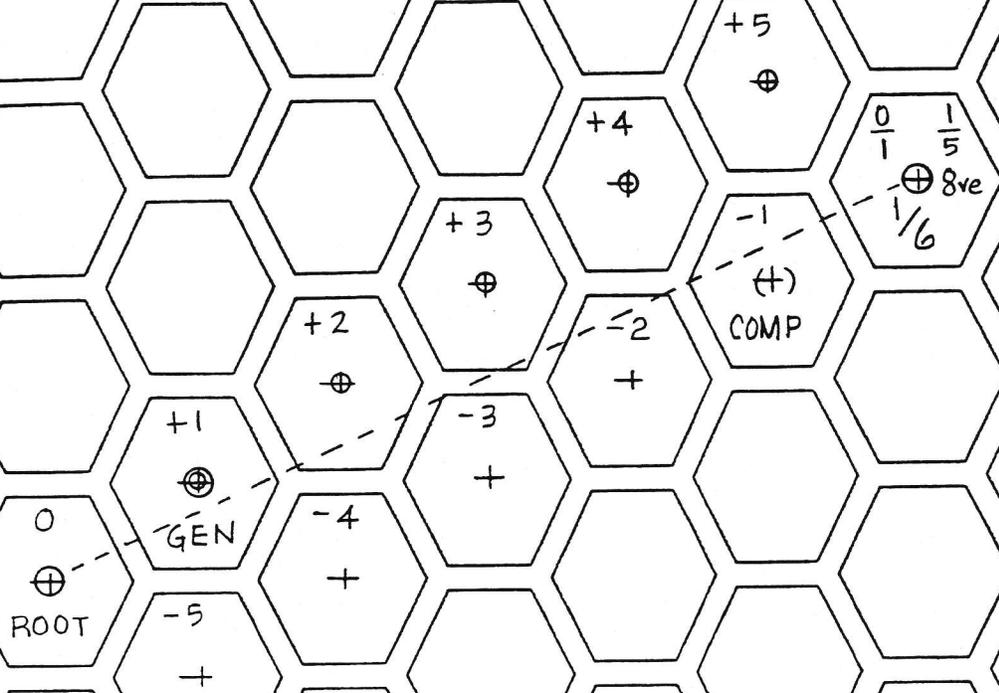
KBD

3/5

KBD

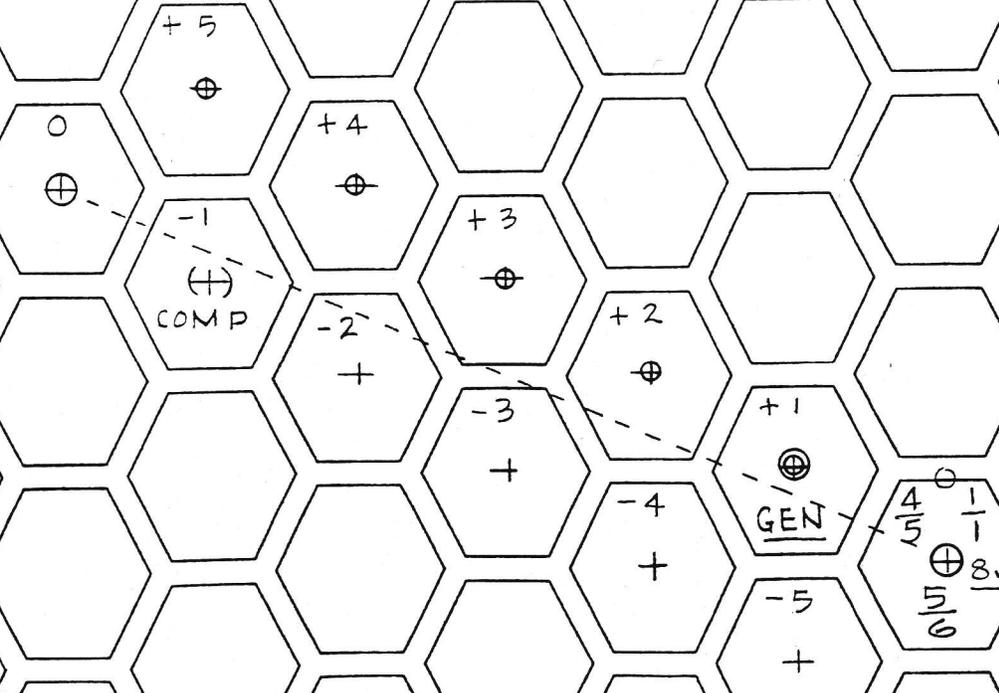
2/5





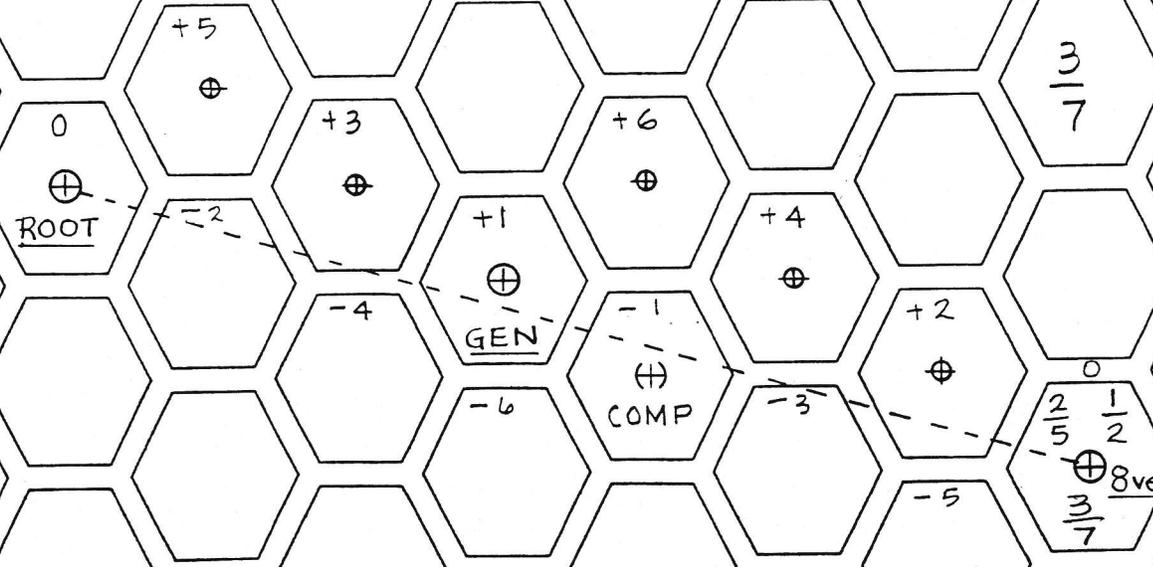
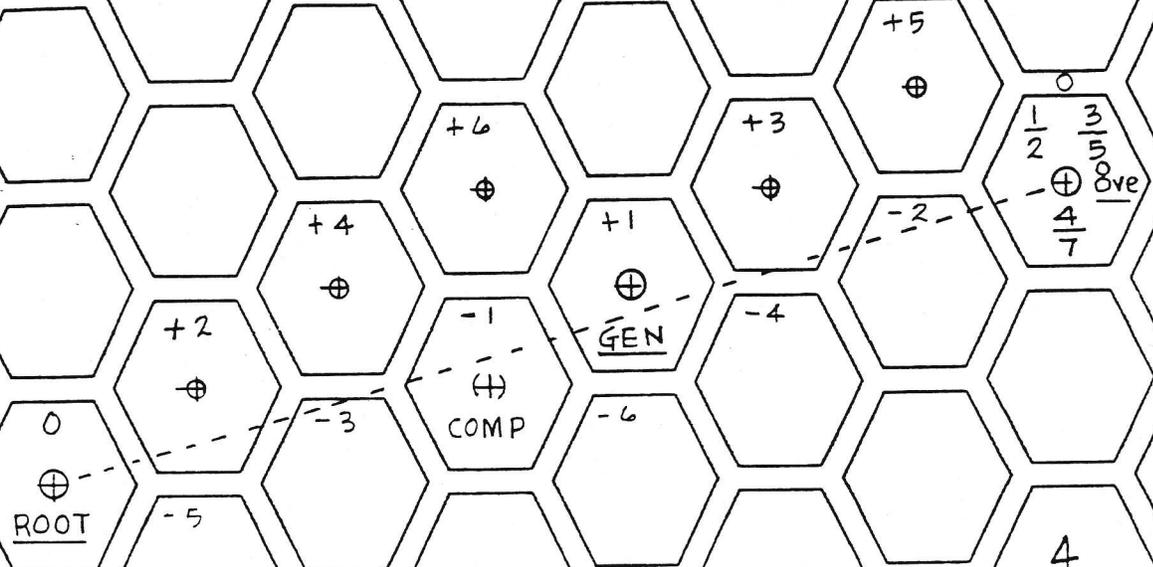
KBD

1/6



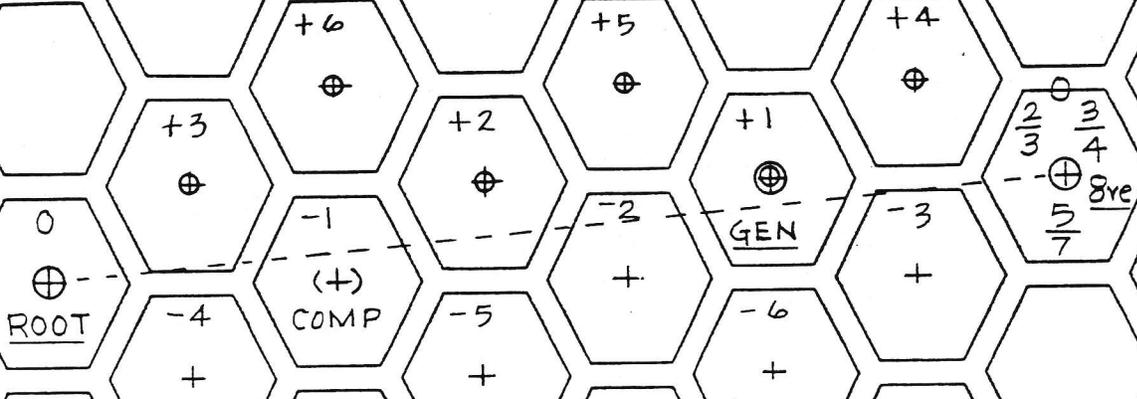
KBD

5/6



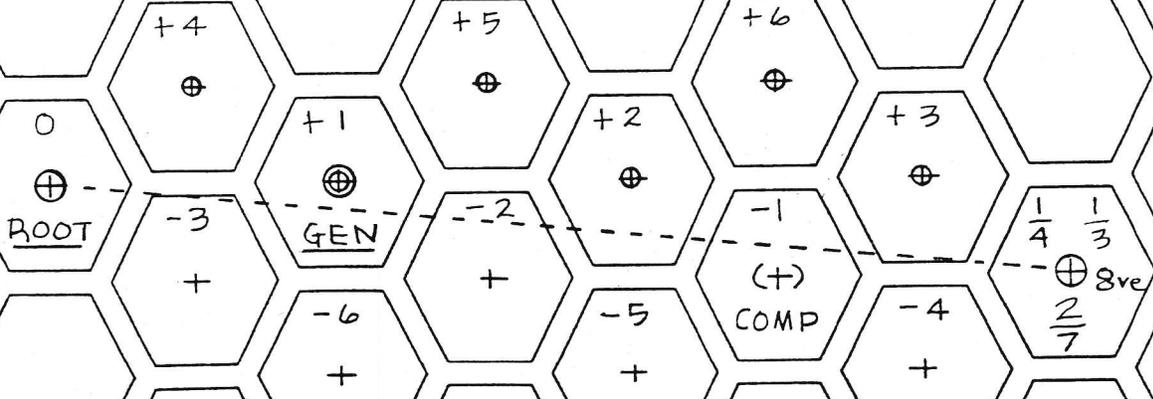
KBD

$\frac{5}{7}$

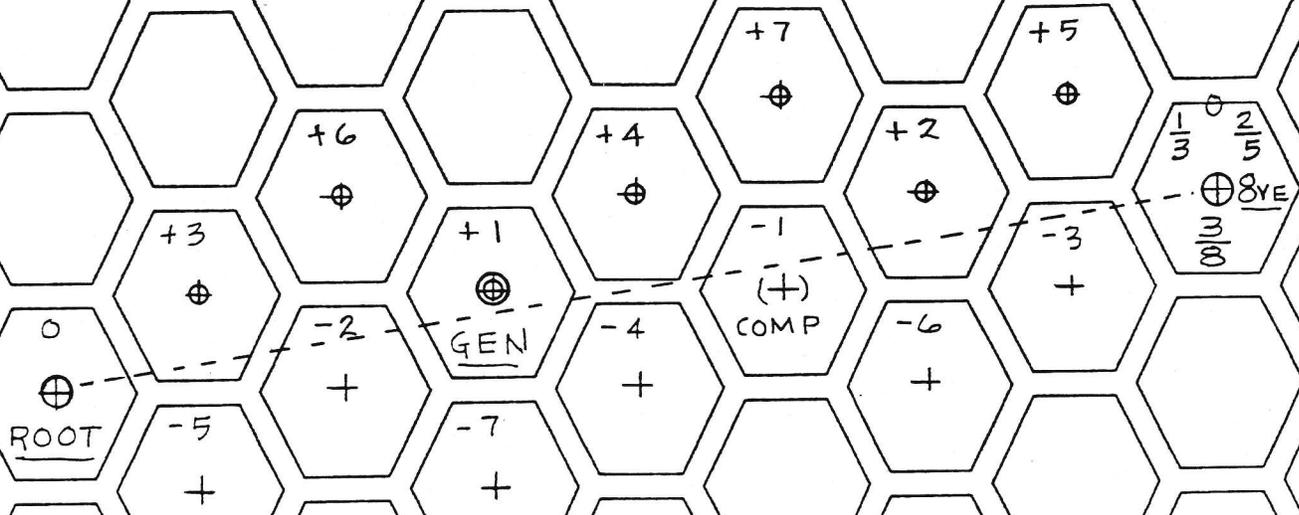


KBD

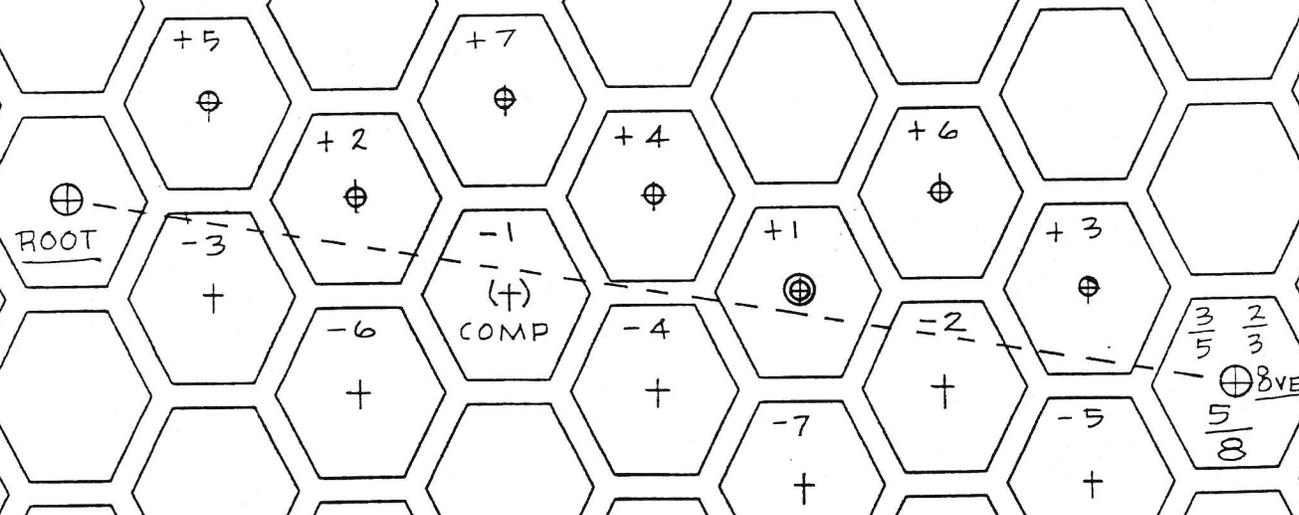
$\frac{2}{7}$



+2 = 3  
+5 = 11



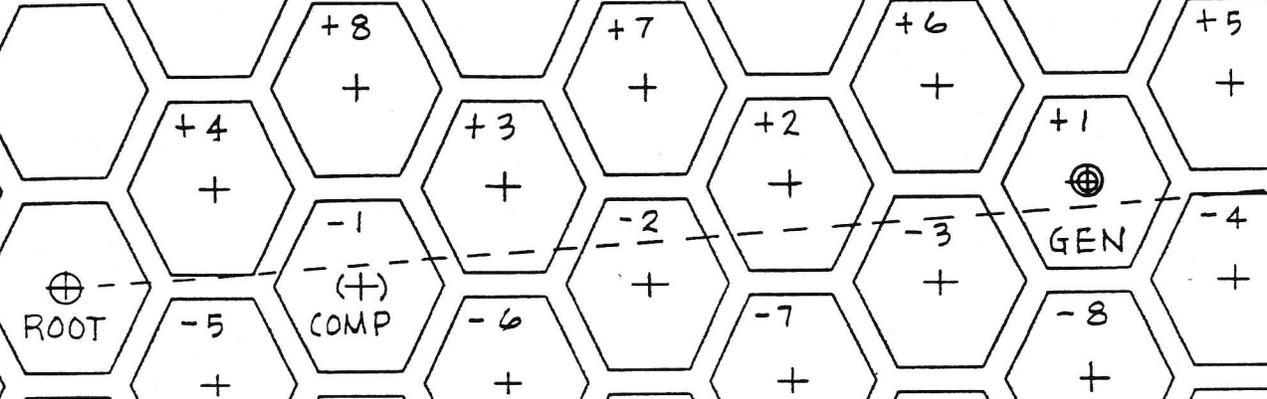
KBD



KBI

5/8

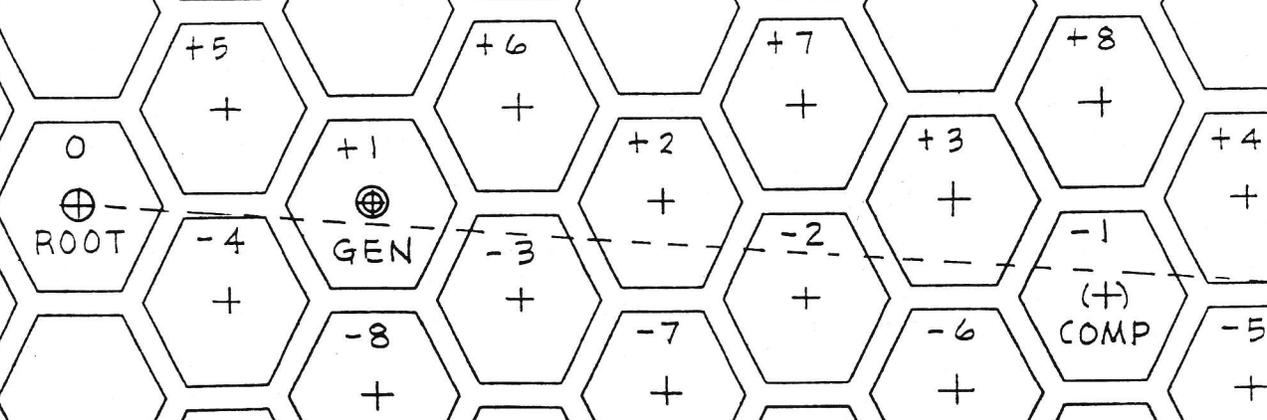




$\frac{3}{4}$   $\frac{4}{5}$   
 $\oplus$  8ve  
 $\frac{7}{9}$

KBD

$\frac{7}{9}$



$\frac{1}{5}$   $\frac{1}{4}$   
 $\oplus$  8  
 $\frac{2}{9}$

KBC

$\frac{2}{9}$

12.

+7

⊕

$\frac{2}{3}$   $\frac{5}{7}$   
⊕ 8ve  
 $\frac{7}{10}$

+8

⊕

+4

⊕

+1

⊕

-3

+

+9

⊕

+5

⊕

-2

+

GEN

-6

+

+6

⊕

+2

⊕

-5

+

-9

+

+3

⊕

-1

⊕

COMP

-8

+

0

⊕

ROOT

-4

+

-7

+

KBD

$\frac{7}{10}$

KBD

$\frac{3}{10}$

+7

⊕

+4

⊕

+8

⊕

0

⊕

ROOT

-3

+

+1

⊕

GEN

-2

+

+5

⊕

+2

⊕

+9

⊕

+6

⊕

-6

+

-9

+

-5

+

-1

⊕

COMP

-4

+

+3

⊕

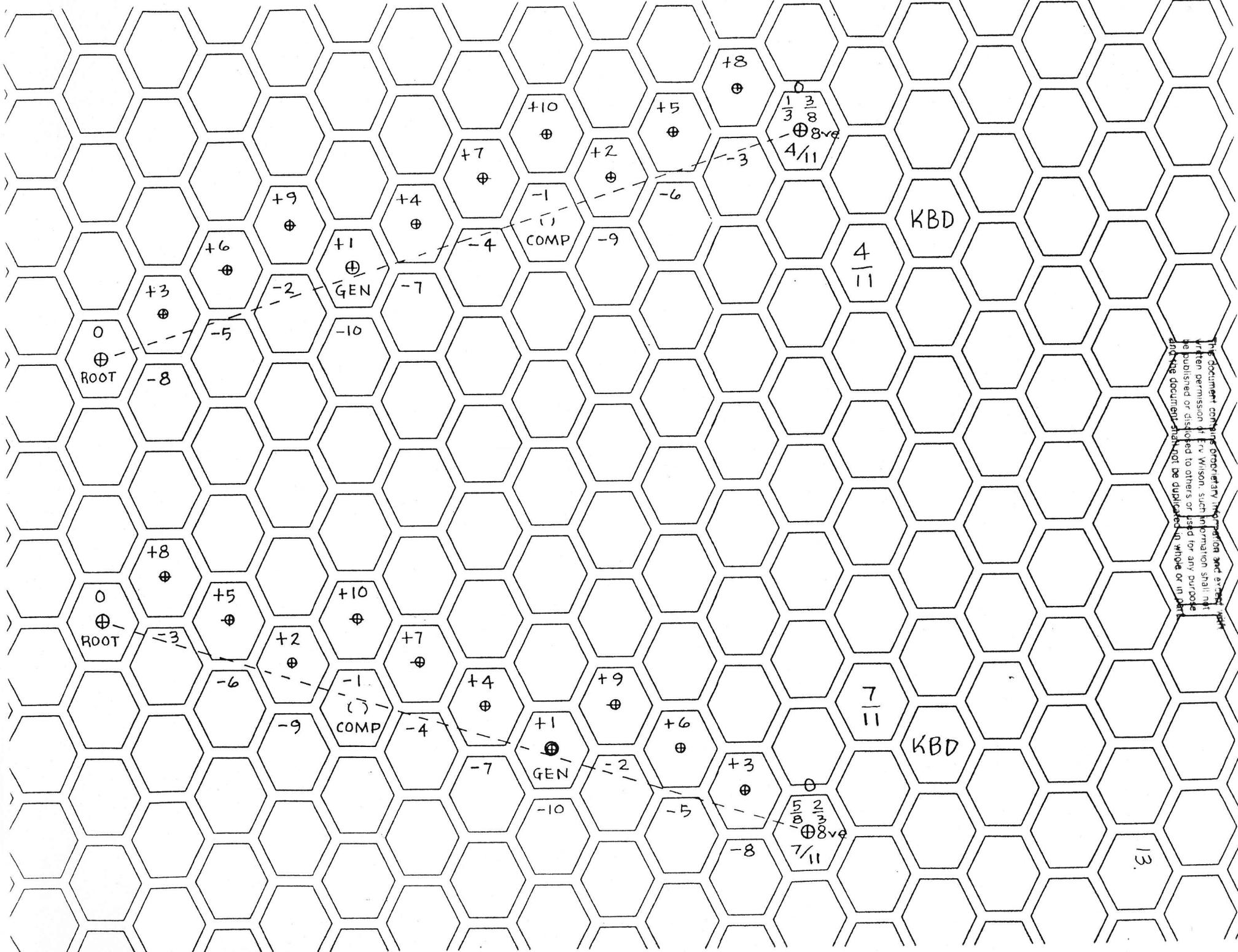
$\frac{2}{7}$   $\frac{1}{3}$   
⊕ 8  
 $\frac{3}{10}$

-8

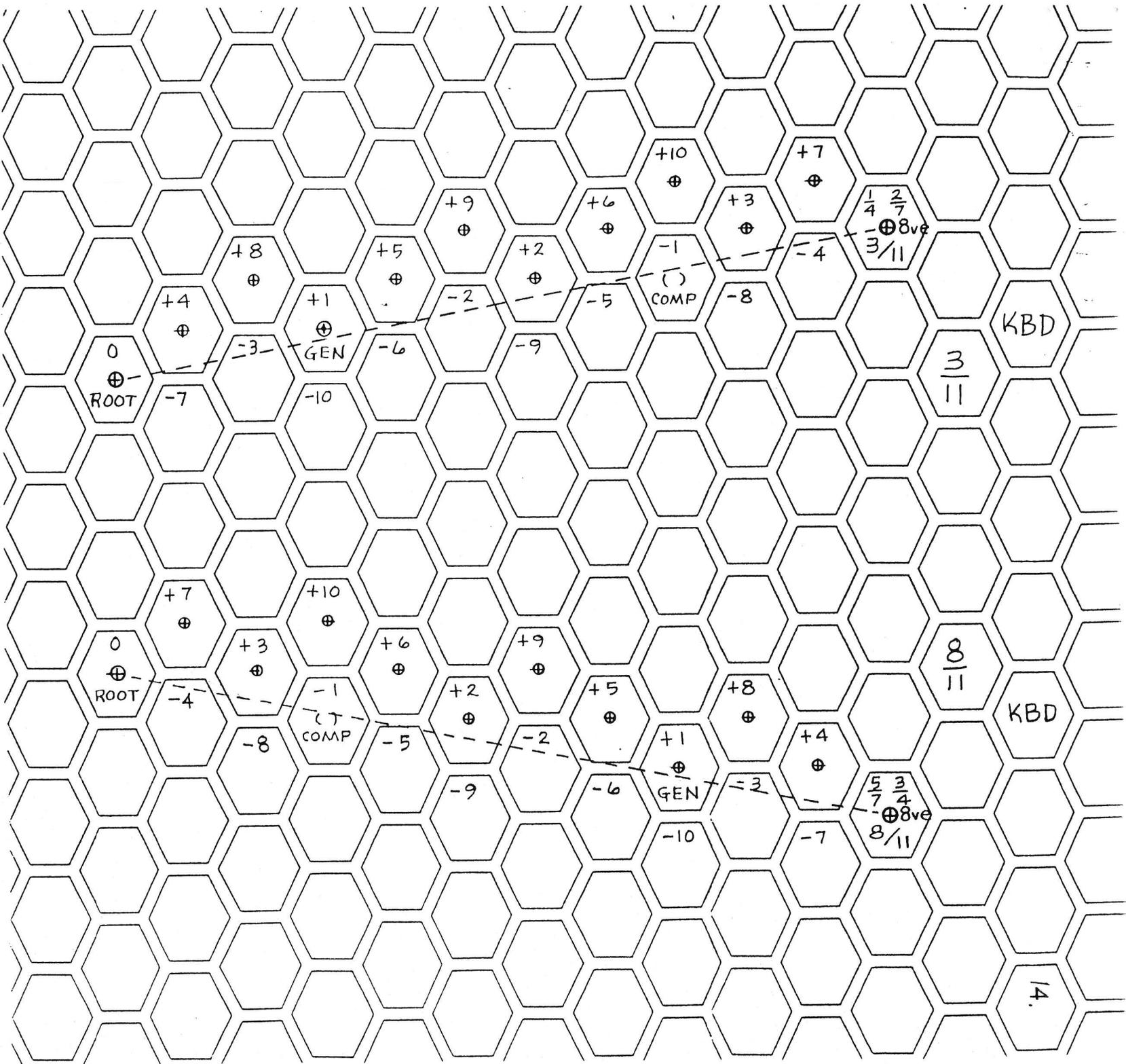
+

-7

+

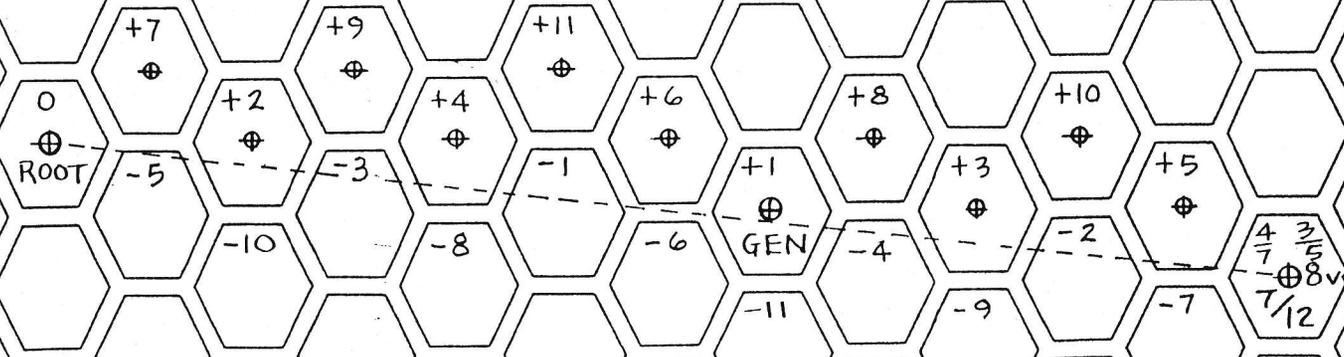
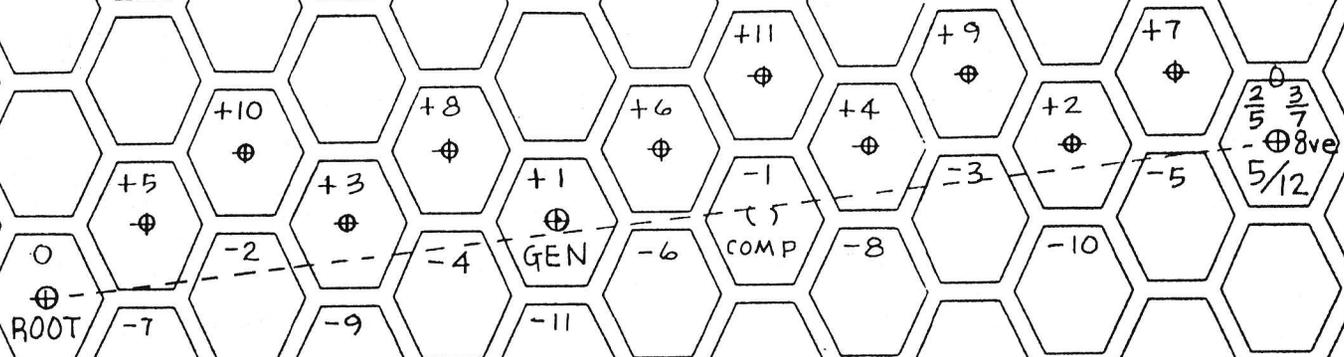


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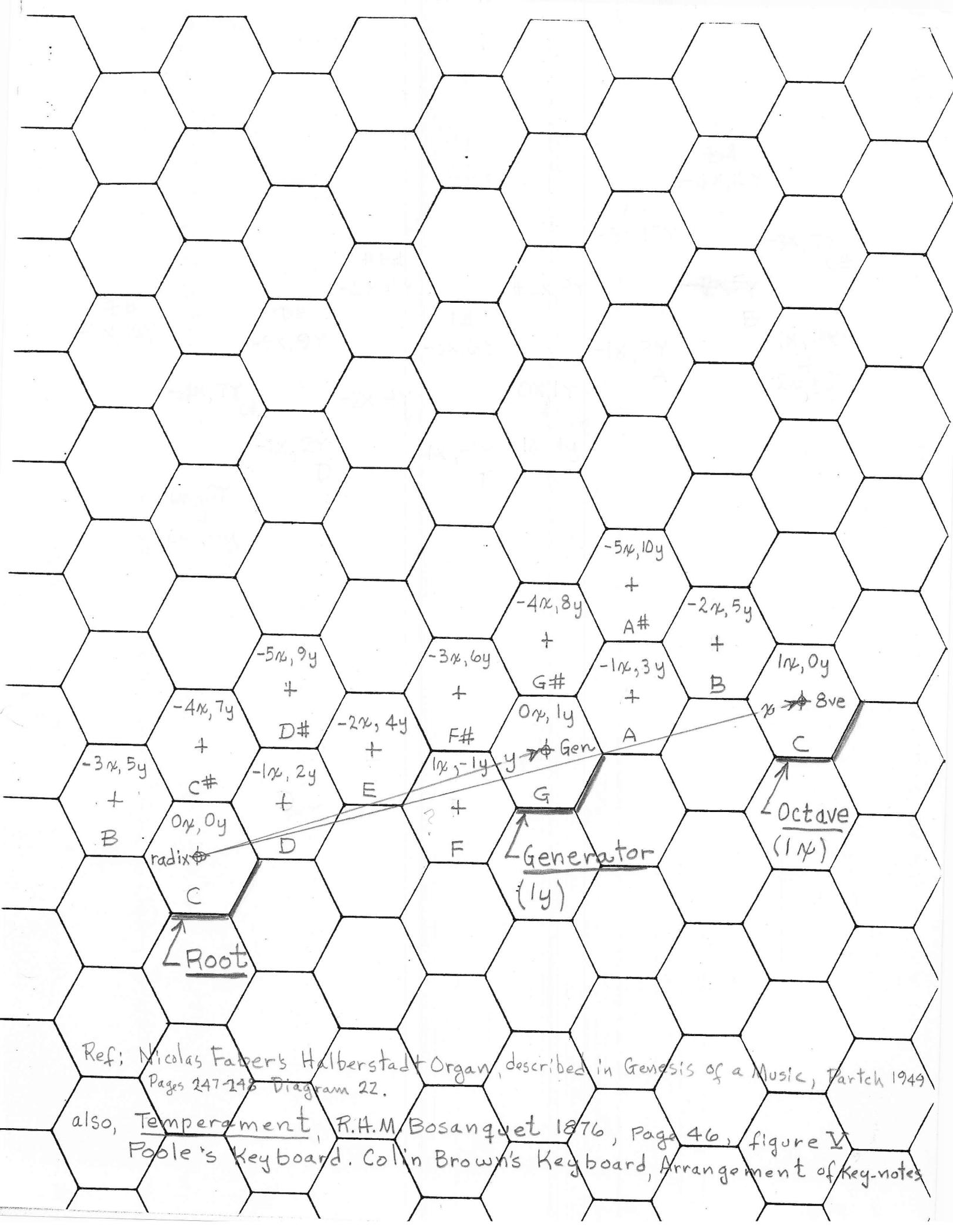


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Ref: Nicolas Fabers Halberstadt Organ, described in Genesis of a Music, Partch 1949  
 Pages 247-248 Diagram 22.  
 also, Temperament, R.A.M. Bosanquet 1876, Page 46, figure V  
 Poole's Keyboard. Colin Brown's Keyboard, Arrangement of Key-notes

$$-10x, 13y$$

$$+$$

$$1.$$

$$0x, 0y$$

$$\oplus$$

$$0.$$

$$-2x, 4y$$

$$+$$

$$2.$$

$$-6x, 8y$$

$$+$$

$$4.$$

$$4x, -5y$$

$$+$$

$$3.$$

$$1x, -1y$$

$$+$$

$$5.$$

$$-9x, 12y$$

$$+$$

$$6.$$

$$-2x, 3y$$

$$+$$

$$7.$$

$$5x, -6y$$

$$+$$

$$8.$$

$$-5x, 7y$$

$$+$$

$$9.$$

$$2x, -2y$$

$$+$$

$$10.$$

$$-8x, 11y$$

$$+$$

$$11.$$

$$-1x, 2y$$

$$+$$

$$12.$$

$$6x, -7y$$

$$+$$

$$13.$$

$$-4x, 6y$$

$$+$$

$$14.$$

$$3x, -3y$$

$$+$$

$$15.$$

$$-7x, 10y$$

$$+$$

$$16.$$

$$0x, 1y$$

$$+$$

$$17.$$

$$7x, -8y$$

$$+$$

$$18.$$

$$-3x, 5y$$

$$+$$

$$19.$$

$$4x, -4y$$

$$+$$

$$20.$$

$$-6x, 9y$$

$$+$$

$$21.$$

$$1x, 0y$$

$$+$$

$$22.$$

EV

D

Bb

A

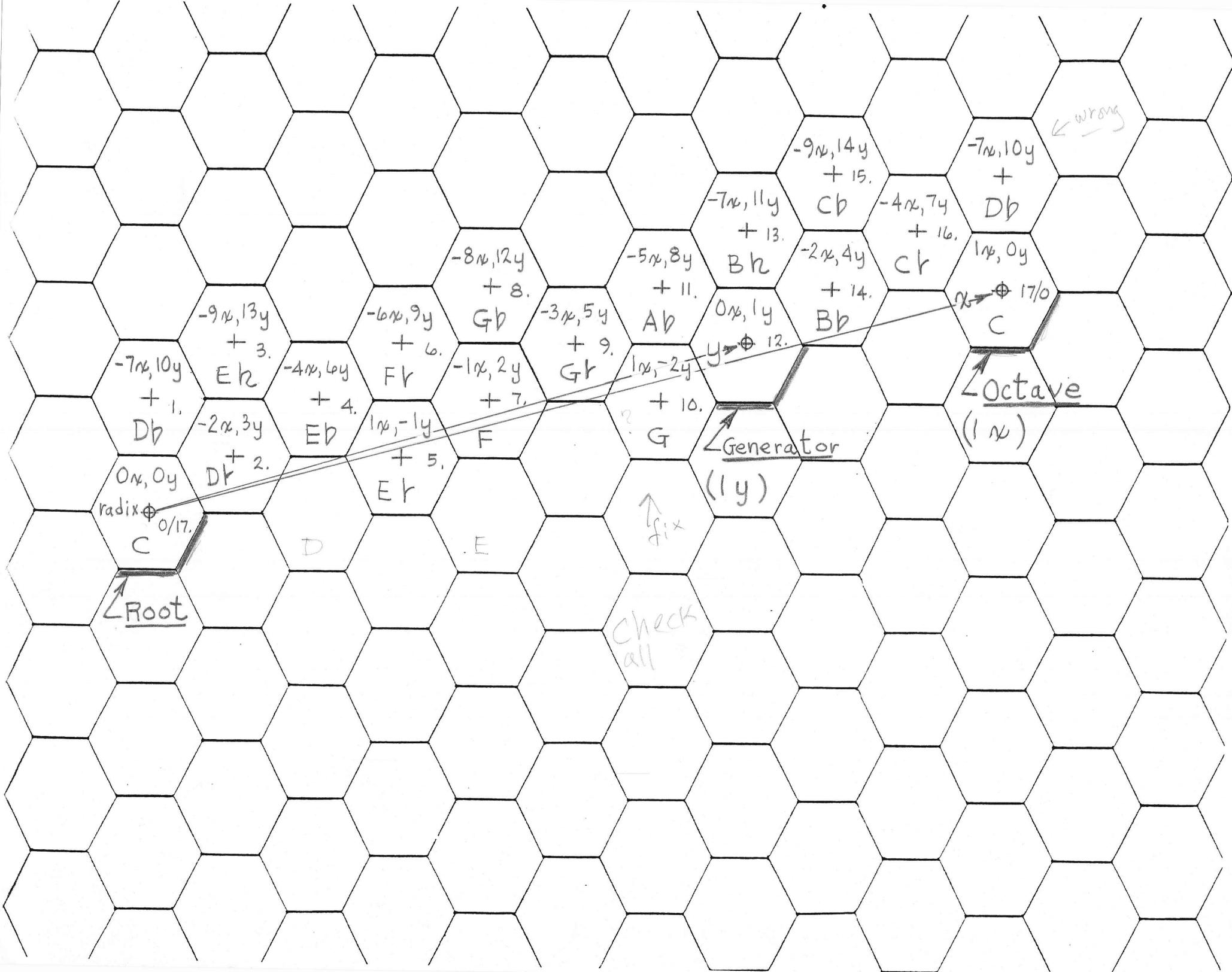
22ig  
22og  
!

53+22  
=75

84 is  
good for  
harmonics  
thru 31!  
expt 11

84+53  
=137!

mercators



wrong

$-9x, 14y + 15.$   
Cb

$-7x, 10y + D_b$

$-4x, 7y + 16.$   
Ct

$-7x, 11y + 13.$   
Bt

$-2x, 4y + 14.$   
Bb

$1x, 0y \oplus 17/0$   
C

$-8x, 12y + 8.$   
Gb

$-5x, 8y + 11.$   
Ab

$-3x, 5y + 9.$   
Gr

$0x, 1y \oplus 12.$   
y

$-9x, 13y + 3.$   
Et

$-6x, 9y + 6.$   
Fr

$-1x, 2y + 7.$   
F

$1x, -2y + 10.$   
G

$-4x, 6y + 4.$   
Ed

$1x, -1y + 5.$   
Er

Generator  
(1y)

Octave  
(1x)

$-7x, 10y + 1.$   
Db

$-2x, 3y + 2.$   
Dt

$0x, 0y \oplus 0/17.$   
C

D

E

fix

check all

Root