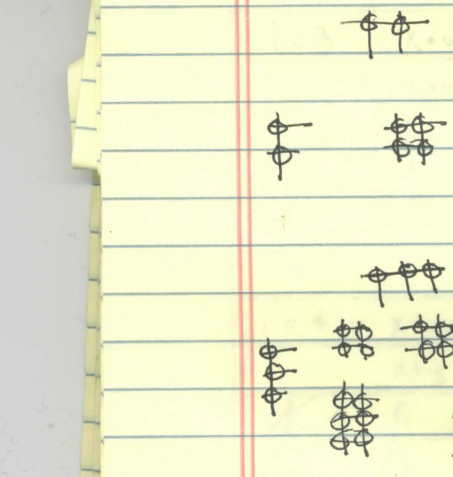
F = 4
i = 2



$_{16}C_2 = 120$

$_4C_1 \cdot {}_4C_2 \cdot 2 = 48$ $\frac{48}{120} \cdot 8$ +

~~$_4C_2 \cdot {}_4C_2 \cdot 2 = 72$~~ $\frac{72}{120} \cdot 4$

$_{16}C_3 = 560$

$_4C_1 \cdot {}_4C_3 \cdot 2 = 32$

~~$_4C_3 \cdot {}_4C_3 \cdot 2 = 32$~~

~~$_4C_2 \cdot {}_4C_3 \cdot 2 = 48$~~ 32

$x \cdot y \neq i$ $x \cdot y = i$ unequivocal
$x \cdot y > i$ equivocal
$x \cdot y$ = retests $x \cdot y < i$ error

~~chance~~ distribution of configs * retest number

for i, $x \cdot y : [i, i^2]$

$x+y : [i+1, 2i]$

valid x and y is a factorization problem?

$i = 2$ $x \cdot y : [2, 4]$ {2, 3, 4}

$x+y : [3, 4]$ 2 2

2·1 3·1 4·1 2+2 (4)

2+1 3+1 4+1

Things are easier if you don't use (1)

i=3 x·y:[3,9]

x+y:[4,6]

~~3~~ 4 ~~8~~ 6 ~~7~~ 8 9

2 2 3 2 2 3 2 4 3 3

i=4 x·y:[4,16]

x+y:[5,8]

16 ~~4~~ ~~5~~ 6 ~~7~~ 8 9 ~~10~~ ~~11~~ 12 ~~13~~ ~~14~~ ~~15~~

4 4 2 2 2 3 2 4 3 3 3 4

i=5 x·y:[5,~~16~~]

x+y:[6,~~10~~] 8

~~6~~ ~~7~~ 8 9 ~~10~~ ~~11~~ 12 ~~13~~ ~~14~~ ~~15~~ 16

2 3 2 4 3 3 3 4 4 4

i=10 x·y [10,~~16~~]

x+y [~~11~~ ~~16~~ ~~18~~]

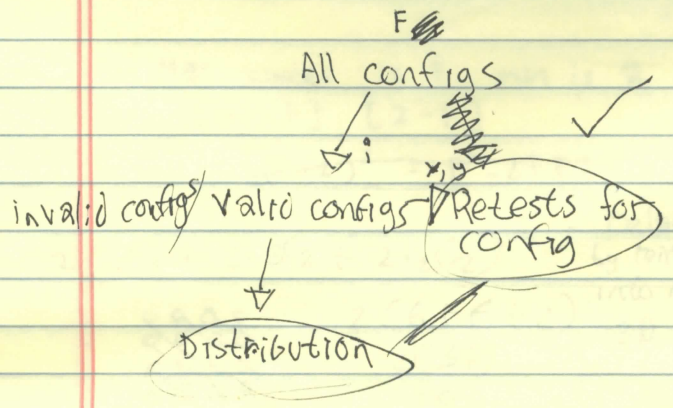
~~10~~, ~~11~~, 12 ~~13~~, ~~14~~, 15, 16

New info

- Retests are the intersection or product of horz + pools an vert + pools
- Valid configs can be limited by i and F
  - ↳ This could be more elegant/general easier to see/use

Unsolved

- what is the distribution of configs?



we have to use

i, F, x, y