

What is the maximum count value produced for any specification and any pile size of 20 or less? What pile size(s), row length(s) and specification(s) produce it?

Given a pile size, row length, and specification can you think of a way of computing its count that doesn't rely on actually carrying out that many transformations?

Pile Size: 1

Row Length: 1 MAX VALUE

TL:	1	1
BL:	1	1
TR:	1	1
BR:	1	1

Pile Size: 2

Row Length: 1 2 MAX VALUE

TL:	1	1	1
BL:	2	1	2
TR:	1	2	2
BR:	2	2	2

Pile Size: 3

Row Length: 1 3 MAX VALUE

TL:	1	1	1
BL:	2	1	2
TR:	1	2	2
BR:	2	2	2

Pile Size: 4

Row Length: 1 2 4 MAX VALUE

TL:	1	2	1	2
BL:	2	4	1	4
TR:	1	4	2	4
BR:	2	2	2	2

Pile Size: 5

Row Length: 1 5 MAX VALUE

TL:	1	1	1
BL:	2	1	2
TR:	1	2	2
BR:	2	2	2

Pile Size: 6

Row Length: 1 2 3 6 MAX VALUE

TL:	1	4	4	1	4
BL:	2	6	3	1	6
TR:	1	3	6	2	6
BR:	2	4	4	2	4

Pile Size: 7

Row Length: 1 7 MAX VALUE

TL:	1	1	1
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BL:	2	1	2
TR:	1	2	2
BR:	2	2	2

Pile Size: 8

Row Length:	1	2	4	8	MAX VALUE
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TL:	1	3	3	1	3
BL:	2	3	6	1	6
TR:	1	6	3	2	6
BR:	2	6	6	2	3

Pile Size: 9

Row Length:	1	3	9	MAX VALUE
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TL:	1	2	1	2
BL:	2	4	1	4
TR:	1	4	2	4
BR:	2	2	2	2

Pile Size: 10

Row Length:	1	2	5	10	MAX VALUE
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TL:	1	6	6	1	6
BL:	2	5	10	1	10
TR:	1	10	5	2	10
BR:	2	6	6	2	6

Pile Size: 11

Row Length:	1	11	MAX VALUE
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TL:	1	1	1
BL:	2	1	2
TR:	1	2	2
BR:	2	2	2

Pile Size: 12

Row Length:	1	2	3	4	6	12	MAX VALUE
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TL:	1	10	5	5	10	1	10
BL:	2	12	6	3	12	1	12
TR:	1	12	3	6	12	2	12
BR:	2	10	10	10	10	2	10

Pile Size: 13

Row Length:	1	13	MAX VALUE
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TL:	1	1	1
BL:	2	1	2
TR:	1	2	2
BR:	2	2	2

Pile Size: 14

Row Length:	1	2	7	14	MAX VALUE
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TL:	1	12	12	1	12
BL:	2	4	4	1	4
TR:	1	4	4	2	4
BR:	2	12	12	2	12

Pile Size: 15
 Row Length: 1 3 5 15 MAX VALUE

TL: 1 6 6 1 6
 BL: 2 4 4 1 4
 TR: 1 4 4 2 4
 BR: 2 6 6 2 6

Pile Size: 16
 Row Length: 1 2 4 8 16 MAX VALUE

TL: 1 4 2 4 1 4
 BL: 2 8 4 8 1 8
 TR: 1 8 4 8 2 8
 BR: 2 4 2 4 2 4

Pile Size: 17
 Row Length: 1 17 MAX VALUE

TL: 1 1 1
 BL: 2 1 2
 TR: 1 2 2
 BR: 2 2 2

Pile Size: 18
 Row Length: 1 2 3 6 9 18 MAX VALUE

TL: 1 8 16 16 8 1 16
 BL: 2 9 9 18 18 1 18
 TR: 1 18 18 9 9 2 18
 BR: 2 8 16 16 8 2 16

Pile Size: 19
 Row Length: 1 19 MAX VALUE

TL: 1 1 1
 BL: 2 1 2
 TR: 1 2 2
 BR: 2 2 2

Pile Size: 20
 Row Length: 1 2 4 5 10 20 MAX VALUE

TL: 1 18 9 9 18 1 18
 BL: 2 6 6 3 6 1 6
 TR: 1 6 3 6 6 2 6
 BR: 2 18 18 18 18 2 18