What's So Hard About Place Value?

Grades K-5

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The Math Projects Journal
Murrieta Valley USD, CA

@MathProjects

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Assigning Value

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Base-2 Place Value (Binary)

1 = one
10 = ten
11 = eleven

1 = one
10 = two
11 = three

111 = one hundred eleven

111 = seven

10101 = twenty-one

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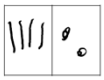
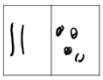
Roll & Compare

For example:

42 24

42 > 24

How does this help understanding of place value?

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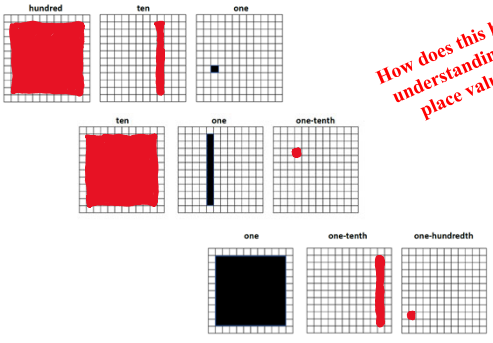
Which is One?



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Big Cup/Little Cup

100's	10's	1's

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Big Cup/Little Cup

Eight

100's	10's	1's
		8

= 8 beans

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Big Cup/Little Cup

Twenty

100's	10's	1's
	2	0

= 20 beans

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Big Cup/Little Cup

Thirty-three

100's	10's	1's
	3	3

= 33 beans

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Big Cup/Little Cup

One Hundred Forty-five

100's	10's	1's
1	4	5

= 145 beans

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Big Cup/Little Cup

a) fewer than ten beans

b) between ten and one hundred beans

c) between one hundred and two hundred beans

d) the whole bag

How does this help understanding of place value?

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Place Value Cups

bit.ly/PlaceValueCups

How does this help understanding of place value?

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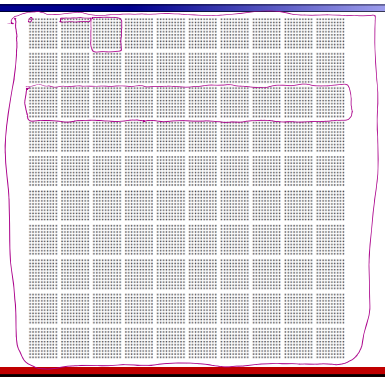
Fence in the Dots



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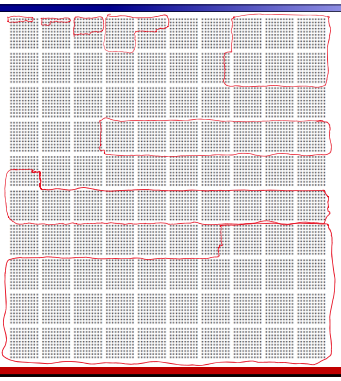
Fence in the Dots



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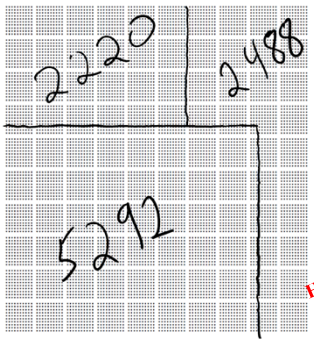
Fence in the Dots



How does this help understanding of place value?

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What's So Hard About Place Value?

2-Week Rule

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Teach Place Value...

...with the faith that they can learn it, and that we can teach it to them,

...so you can change this world, one math lesson at a time.

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