Making the Most of Meaningful Models

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Number Representations

- Sets
- Length
- Number lines
- Array/Area

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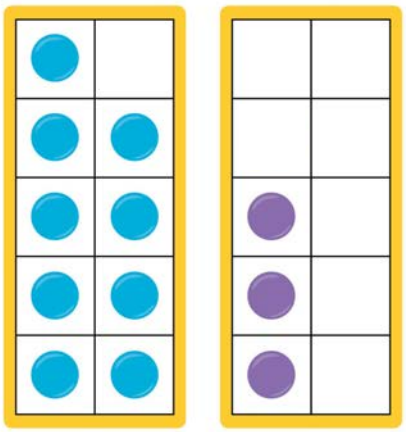
Sets

Introducing the Make-Ten Addition Strategy



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9 + 4 is the same as 10 + 3

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Gem Stones

YouTube: GemStonesElementaryMath

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Length

Representing Quantity

Number Track

1	2	3	4	5	6	7	8	9	10

Bar model

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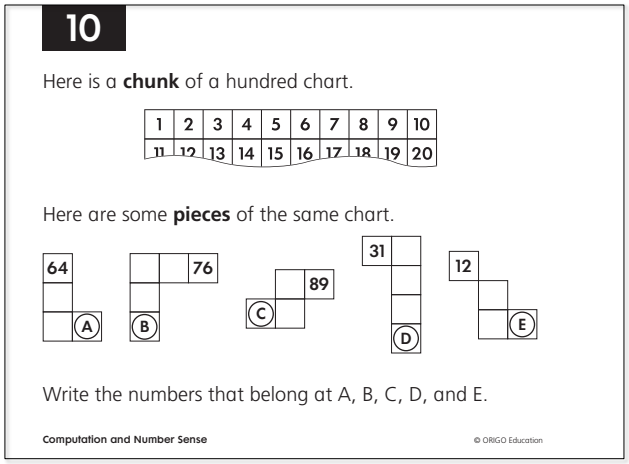
Length

Using a Hundreds Board for Computational Thinking



10

Here is a **chunk** of a hundred chart.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Here are some **pieces** of the same chart.

Write the numbers that belong at A, B, C, D, and E.

Computation and Number Sense

Think Tank

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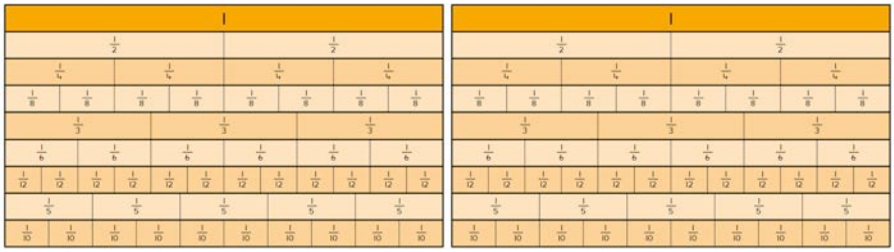
Length

Representing Fractions



In practice there should be more than one wall.

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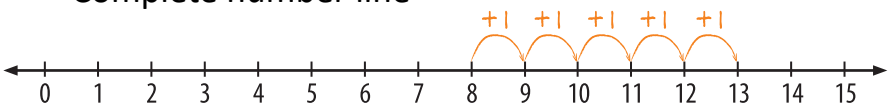
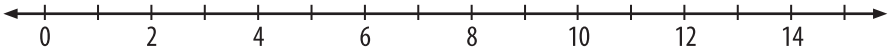
Number Lines

Modeling Thinking Strategies

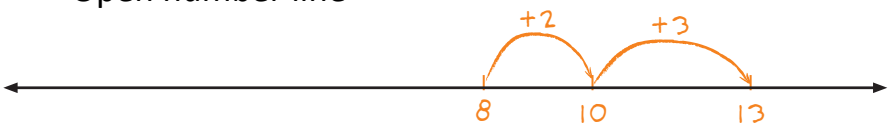
Complete number line



Partial number line



Open number line



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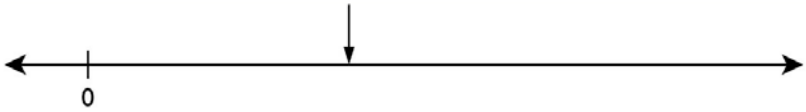
Number Lines

Exploring Relative Position of Number



If the arrow is pointing to 50, where do you think these numbers are located?

- 100
- 10
- 110
- 25

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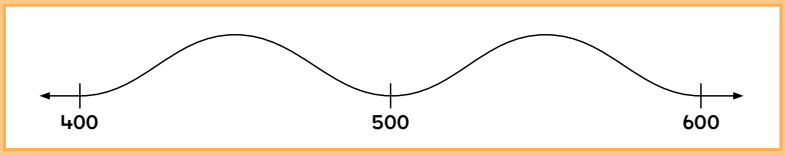
Number Lines

Rounding Numbers

Imagine you placed a ball on this special number line.



How could the ball help you decide which hundred is closest to 540?

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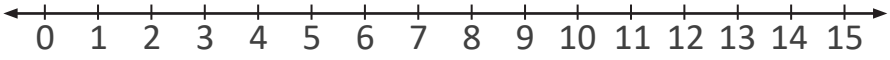
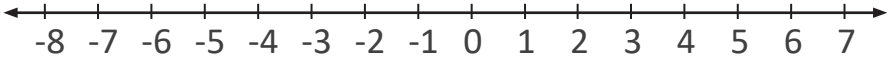
Number Lines

Represents most Numbers

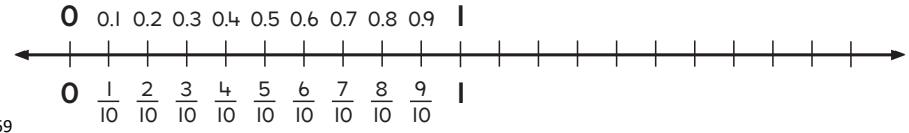
Whole numbers



Integers



Rational numbers



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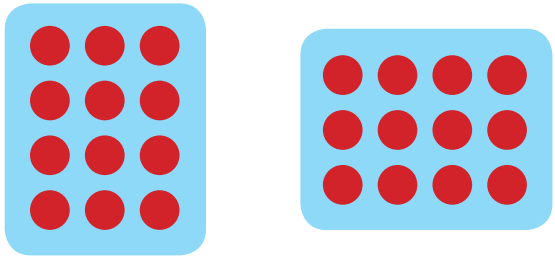
Arrays

Modeling the Commutative Property of Multiplication



4×3 3×4

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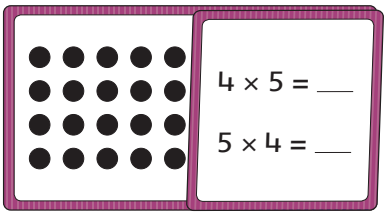
Arrays

Introducing the Fives Facts Strategy



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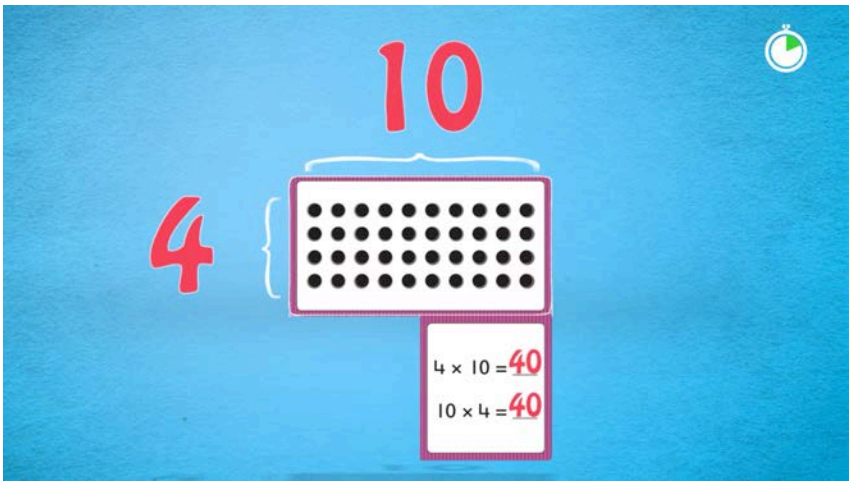
One-Minute Professional Learning Videos

http://origo.one



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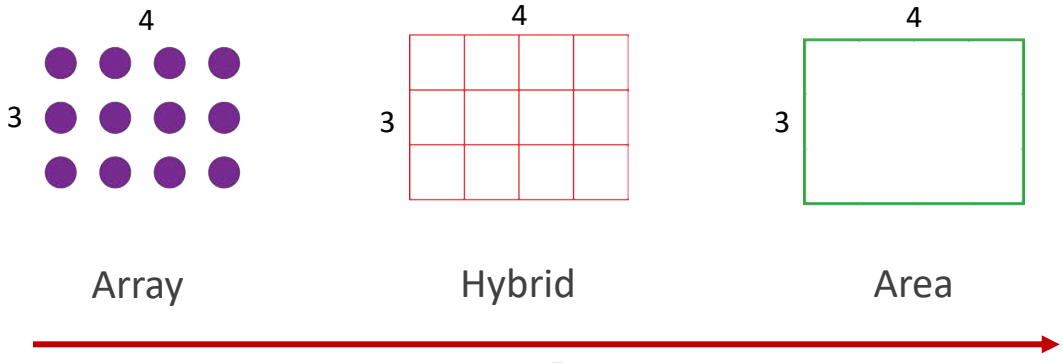
Arrays vs. Area

Whole Numbers



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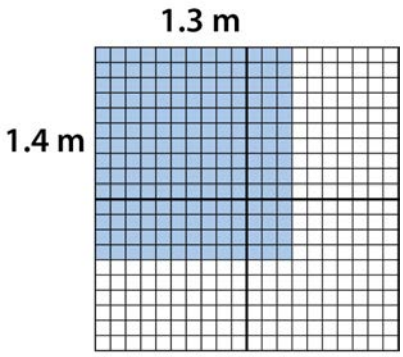
Arrays

Multiplying Decimal Fractions

$1.4 \times 1.3 = \_\_\_\_$



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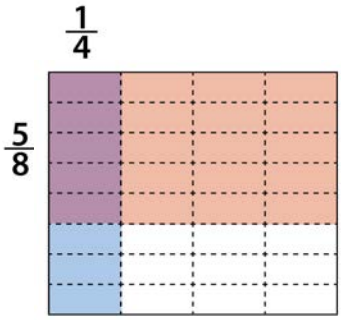
Area

Multiplying Common Fractions

$$\frac{5}{8} \times \frac{1}{4} = \_\_\_\_$$



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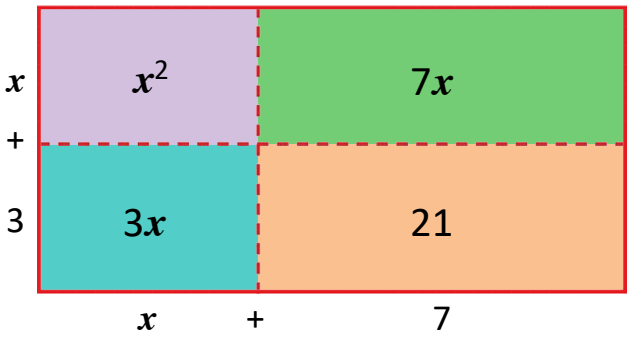
Area

Algebra (Multiplying Binomials)

$A = (x + 3)(x + 7)$



$A =$

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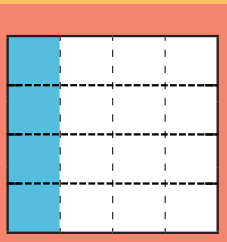
Area

Finding Equivalent Fractions

In the shape, color a part to show the first fraction.
Draw more lines to show the second fraction.
Then write the missing numbers.



$\frac{1}{4} \times \frac{4}{4}$ is the same as $\frac{4}{16}$

STEPPING STONES

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