

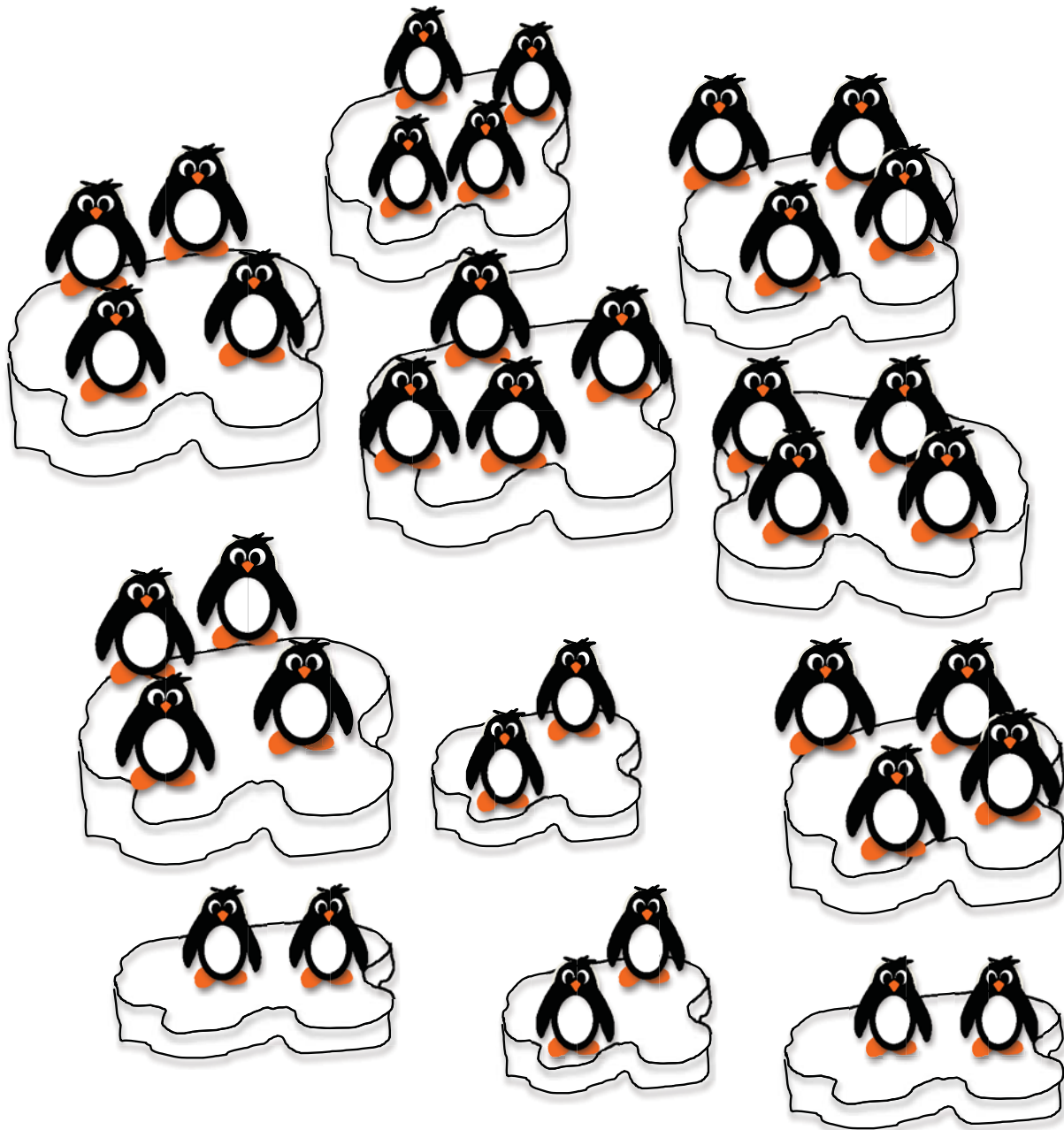


Eyes on Math

Pictures for Grades 3–5

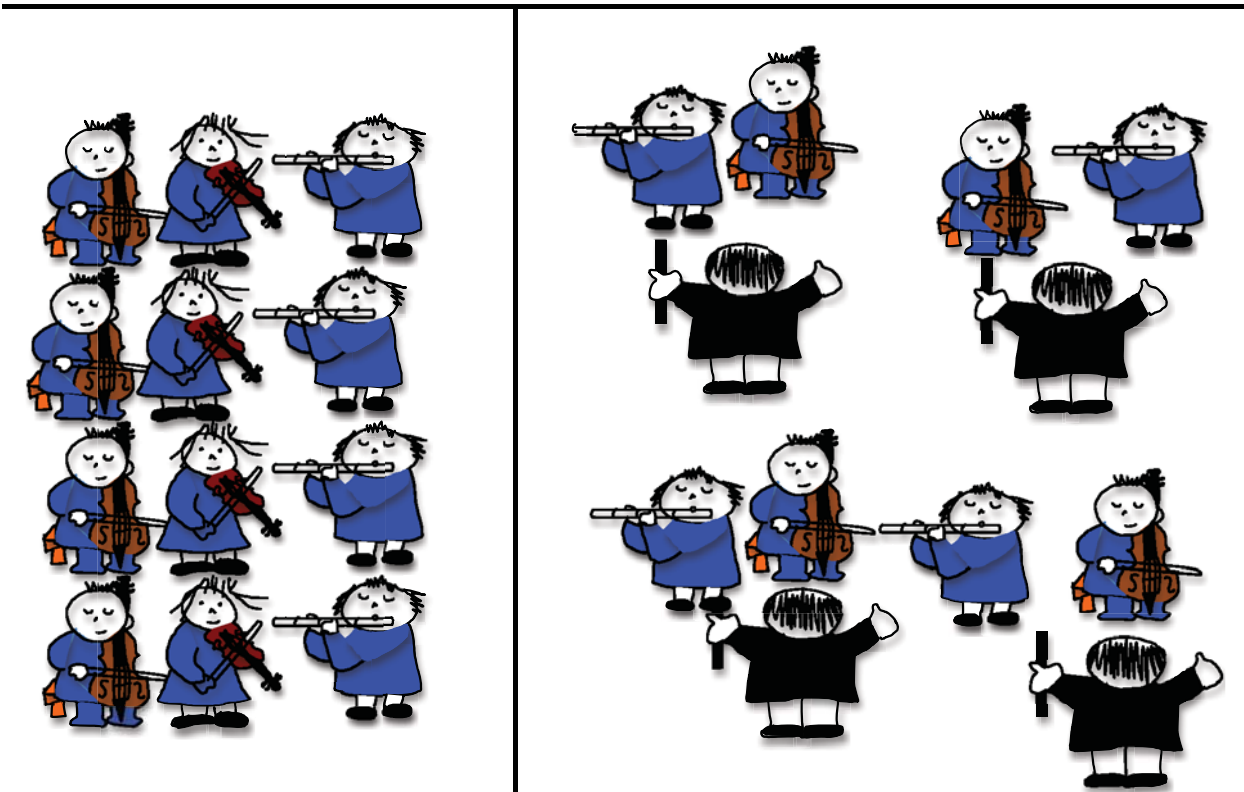
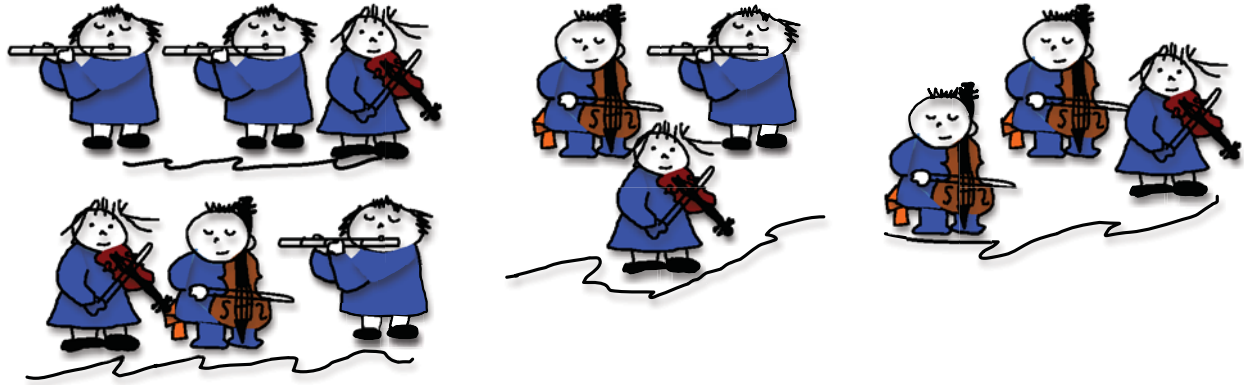
	CCSS	Book pages	PDF page
Multiplication: Equal Groups	3.OA	80–81	2
Multiplication: Commutativity	3.OA	82–83	3
Multiplication: The Distributive Principle	3.OA	84–85	4
Multiplication: 2-Digit by 2-Digit	4.NBT	86–87	5
Division as Equal Groups or Sharing	3.OA	88–89	6
Division: Remainders	4.OA	90–91	7
Rounding Numbers	3.NBT	92–93	8
Place Value: Multiplying and Dividing by Powers of 10	4.NBT	94–95	9
Place Value: Renaming Numbers	4.NBT	96–97	10
Factors: What They Are	4.OA	98–99	11
Factors Come in Pairs	4.OA	100–101	12
Fractions: Representing	3.NF	102–103	13
Fractions: Equivalence	3.NF	104–105	14
Fractions: Comparing	3.NF	106–107	15
Fractions: Mixed Number/Improper Fraction Relationship	4.NF	108–109	16
Fractions: Common Denominators	4.NF	110–111	17
Adding Fractions	5.NF	112–113	18
Multiplying Fractions	5.NF	114–115	19
Fractions: Multiplying as Resizing	5.NF	116–117	20
Fractions as Division	5.NF	118–119	21
Decimals: Relating Hundredths to Tenths	4.NF	120–121	22
Decimals: Equivalence	4.NF	122–123	23
Decimals: Adding and Subtracting	5.NBT	124–125	24
Measurement: Time Intervals	3.MD	126–127	25
Measurement: Area of Rectangles	3.MD	128–129	26
Perimeter Versus Area	3.MD	130–131	27
Measurement Conversions	4.MD, 5.MD	132–133	28
Graphs with Scales	3.MD	134–135	29
Coordinate Grids	5.G	136–137	30
Classification of Shapes	5.G	138–139	31
Parallel and Perpendicular Lines	4.G	140–141	32
Lines of Symmetry	4.G	142–143	33
Patterns Versus Non-patterns	4.OA	144–145	34
Algebraic Thinking: Growing Additively	4.OA	146–147	35
Algebraic Thinking: Shrinking Additively	4.OA	148–149	36
Algebraic Thinking: Growing Multiplicatively	5.OA	150–151	37

Can you write $\square \times \square$ to describe this picture?



MULTIPLICATION: EQUAL GROUPS • Grades 3–5 • CCSS 3.OA

Which pictures make it easy to see that $3 \times 4 = 4 \times 3$? Which do not?



MULTIPLICATION: COMMUTATIVITY • Grades 3–5 • CCSS 3.OA

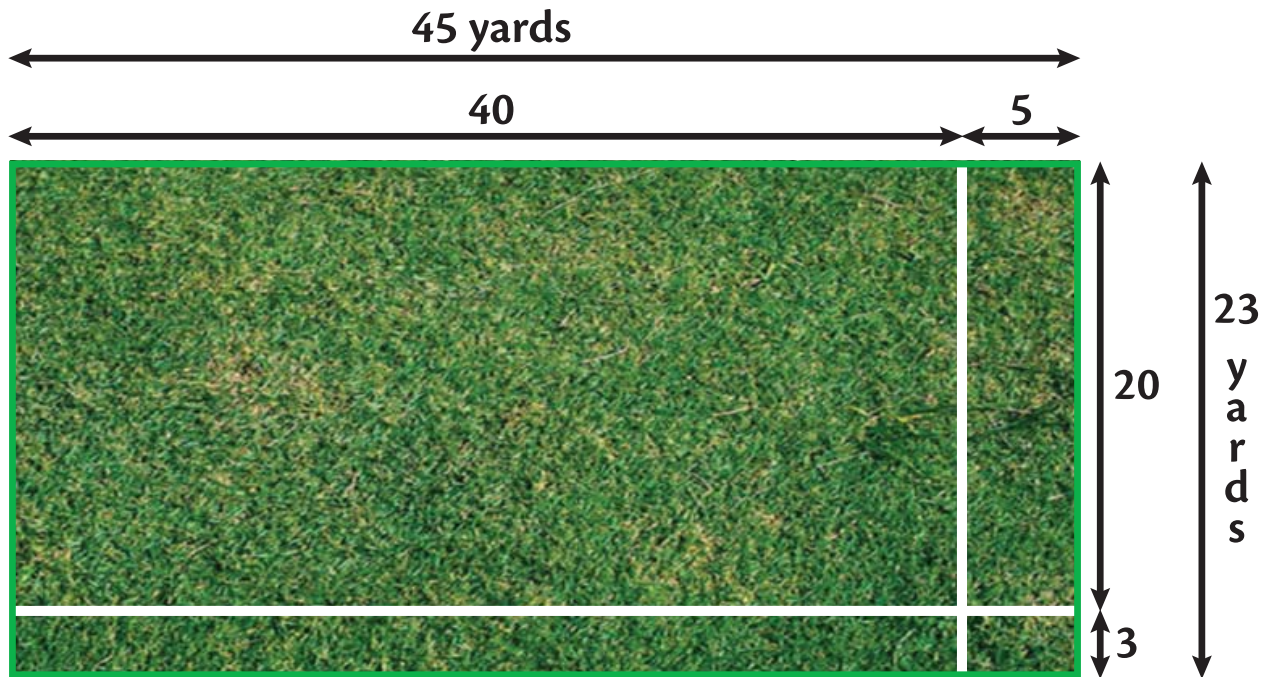
How does the picture help you see that there are lots of ways to figure out what 7×6 is?



MULTIPLICATION: THE DISTRIBUTIVE PRINCIPLE • Grades 3–5 • CCSS 3.OA

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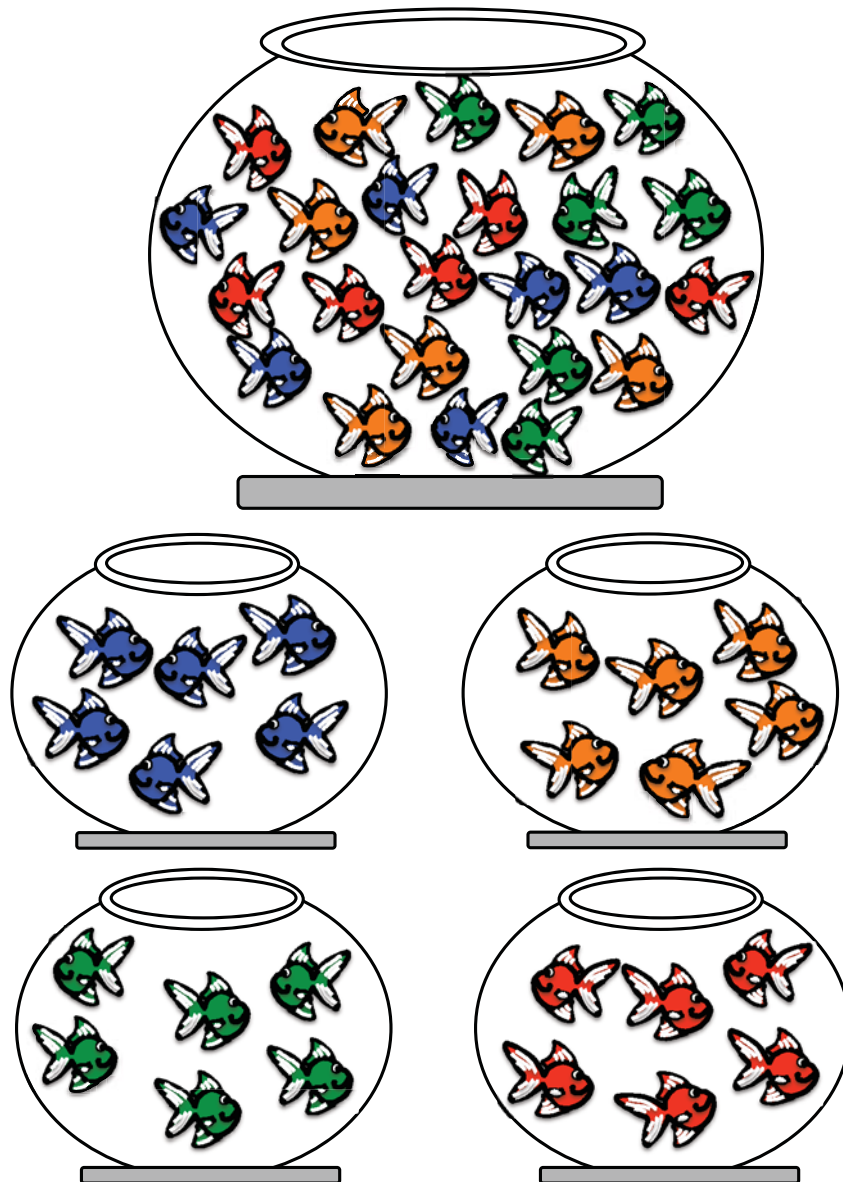
How do the white lines help you figure out the grass area?



MULTIPLICATION: 2-DIGIT BY 2-DIGIT • Grades 3–5 • CCSS 4.NBT

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What division story does the picture show?
Suppose there were 4 more fish.
Would it still show a division story? How?



DIVISION AS EQUAL GROUPS OR SHARING • Grades 3–5 • CCSS 3.OA

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Where are the remainders in each picture?
What does “remainder” mean?

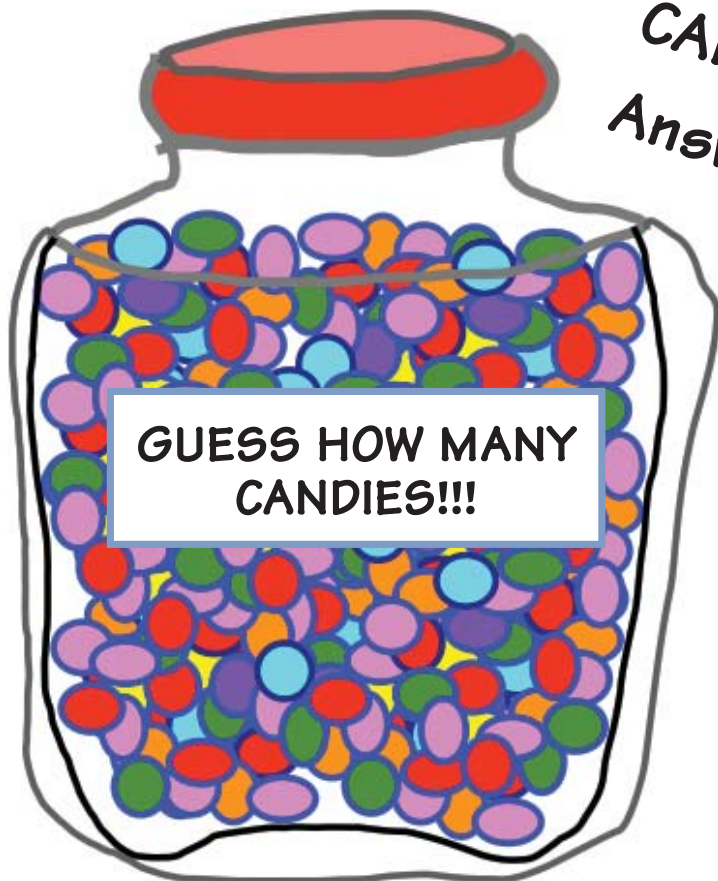


DIVISION: REMAINDERS • Grades 3–5 • CCSS 4.OA

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Which would you say:

- About 400 candies?
- About 430 candies?
- About 425 candies?

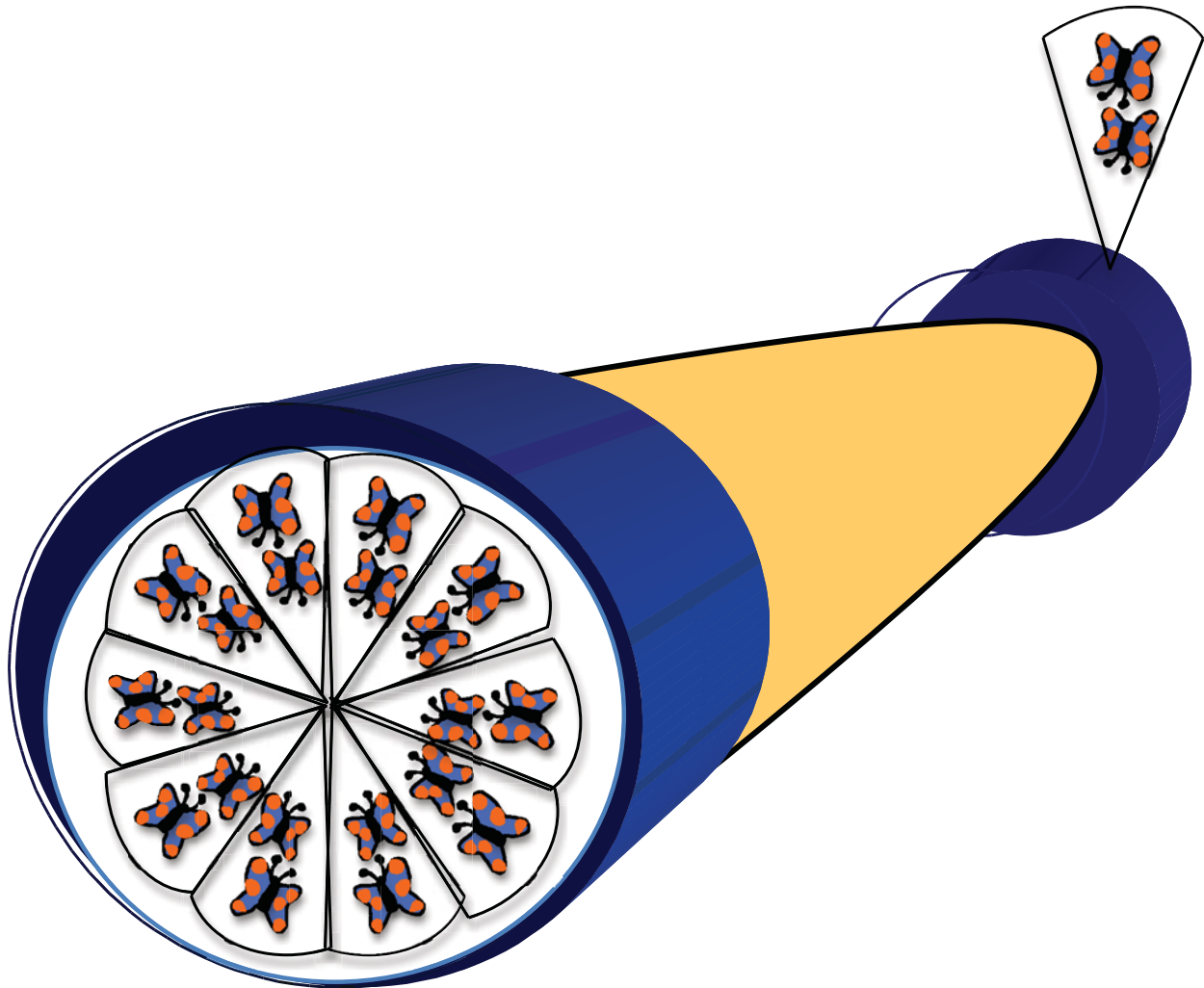


*GUESS the Number of
CANDIES in this JAR!!!
Answer: 426 Candies*

ROUNDING NUMBERS • Grades 3–5 • CCSS 3.NBT

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Suppose there were eight butterflies
to look at through the kaleidoscope.
How many butterflies would you
see in the viewer?



If the people sat in stands of 100 people,
how many stands would have been full?

How many rows of 10 people
would have been full?

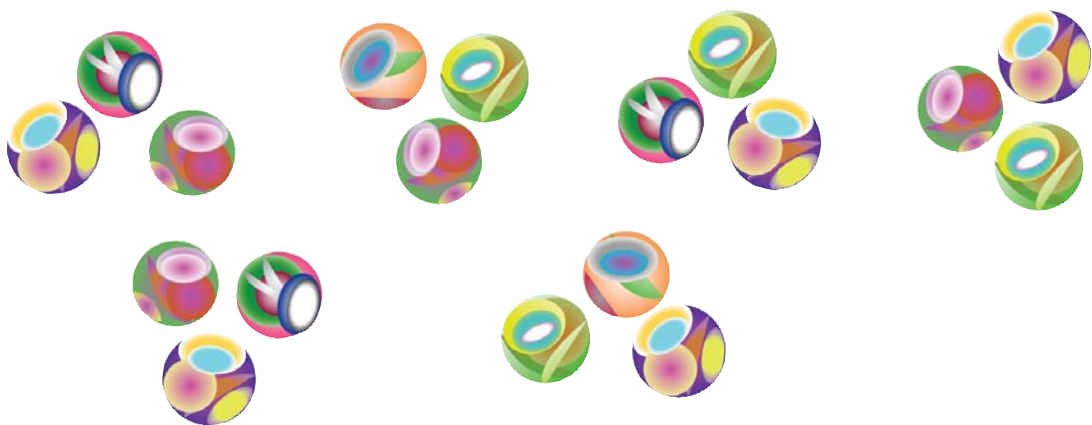
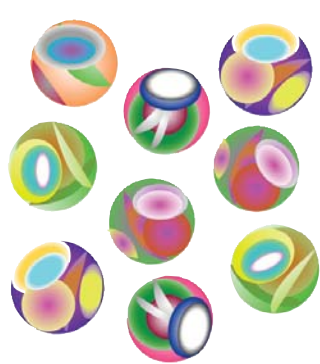


PLACE VALUE: RENAMING NUMBERS • Grades 3–5 • CCSS 4.NBT

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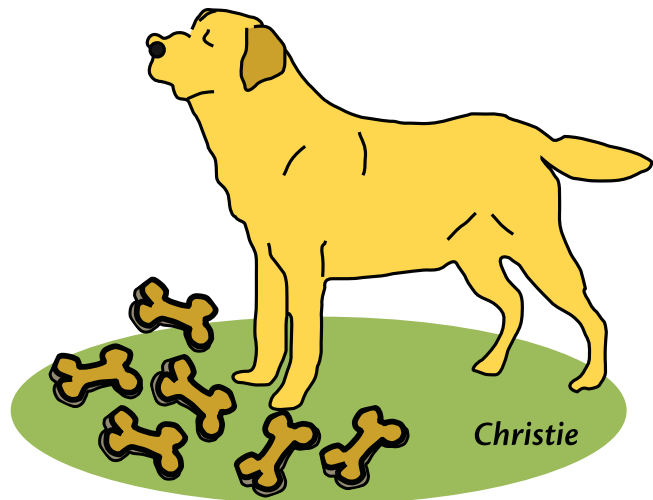
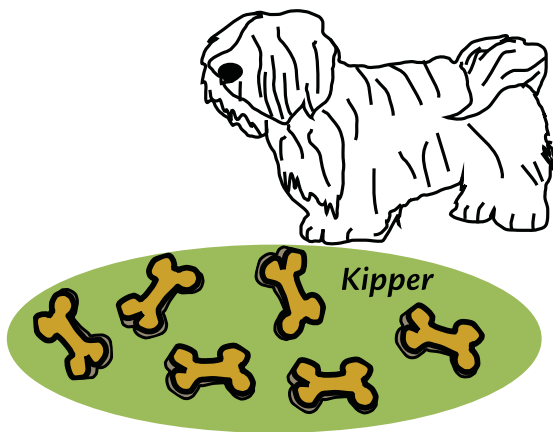
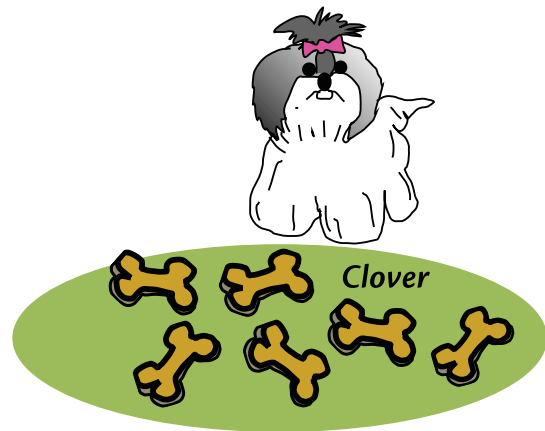
How many people could share 18 marbles fairly?



FACTORS: WHAT THEY ARE • Grades 3–5 • CCSS 4.OA

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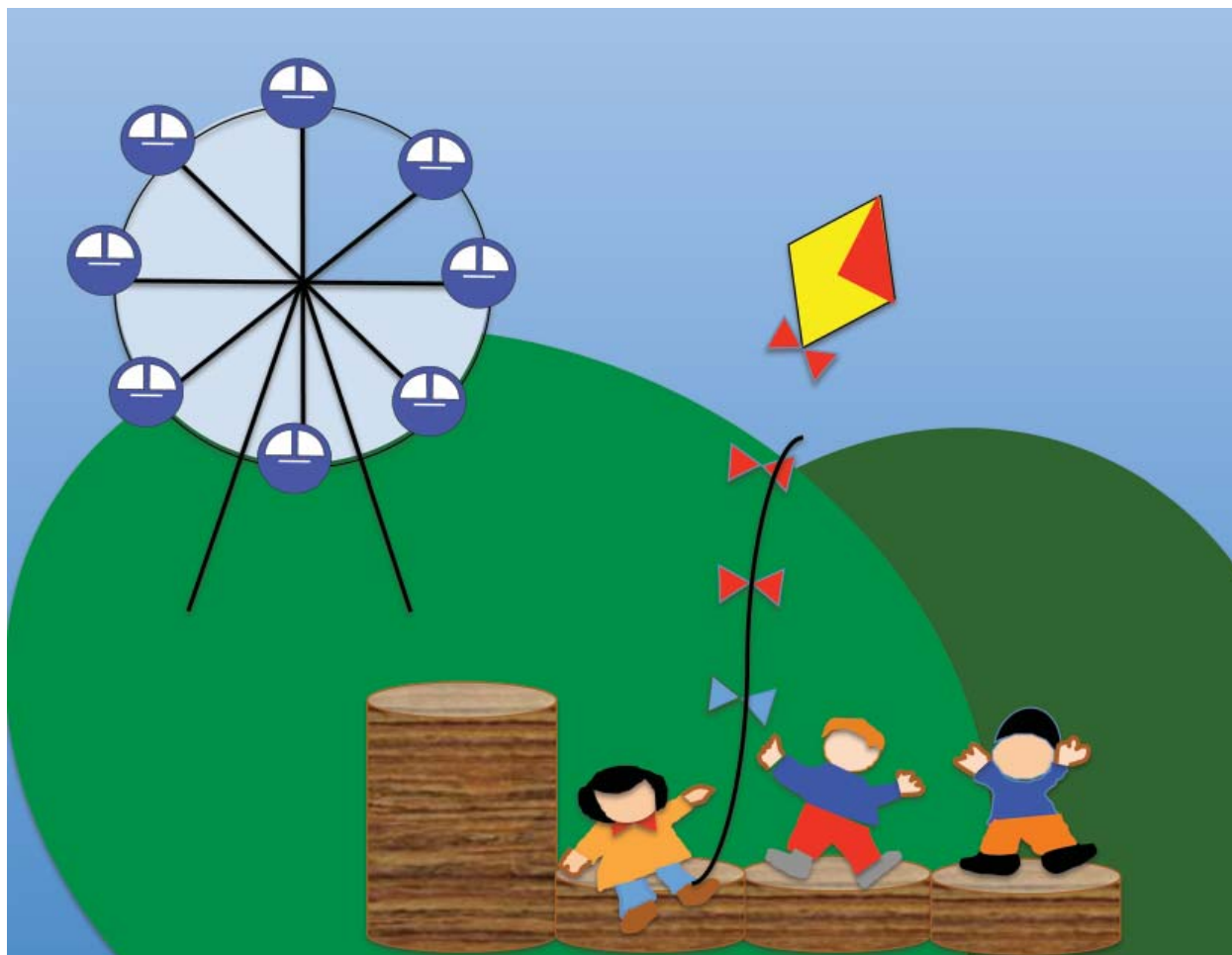
How do you know that 6 dogs could also share 24 bones fairly?



FACTORS COME IN PAIRS • Grades 3–5 • CCSS 4.OA

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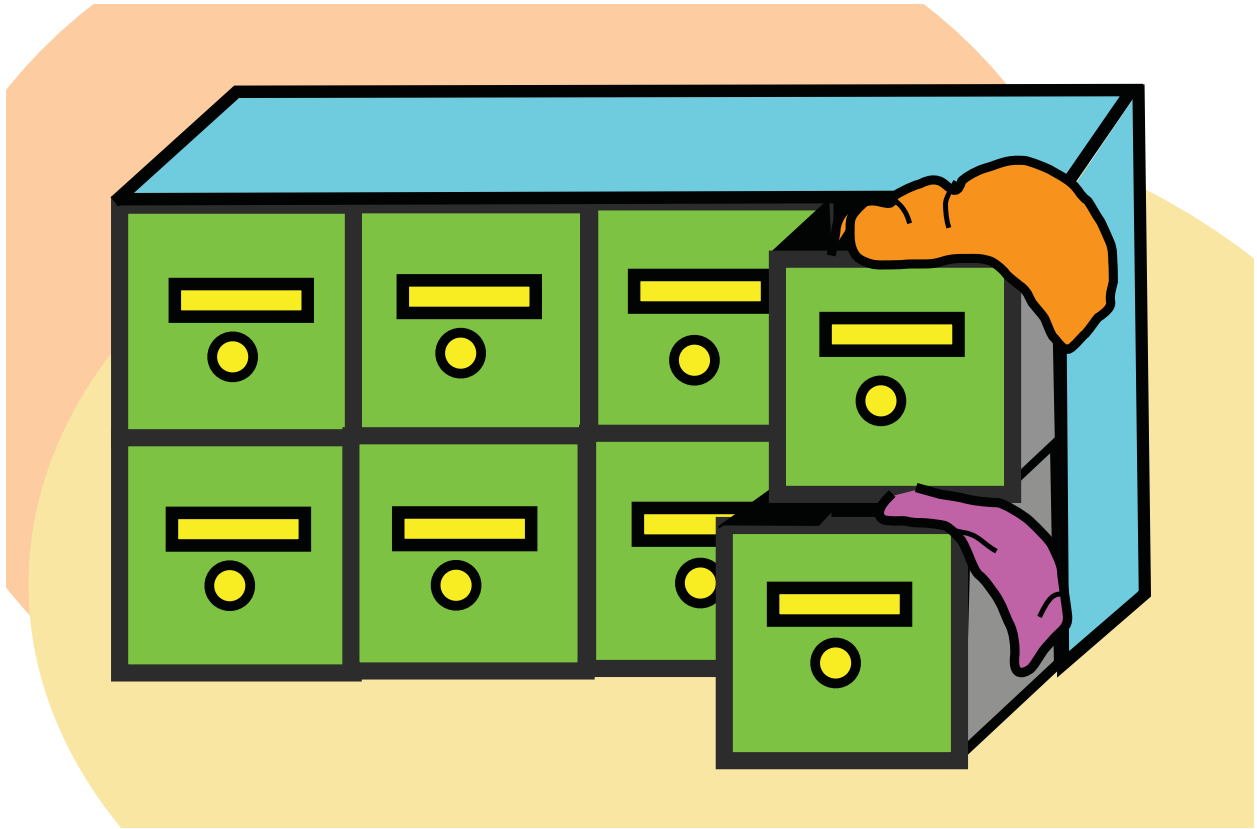
What does this picture show about fractions?



FRACTIONS: REPRESENTING • Grades 3–5 • CCSS 3.NF

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How can you describe the cabinet using fractions?














FRACTIONS: EQUIVALENCE • Grades 3–5 • CCSS 3.NF







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What fractions would you compare to decide which group of days seems the sunniest?

Monday	Tuesday	Wednesday	Thursday
			

Monday	Tuesday	Wednesday	Thursday	Friday
				

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					

FRACTIONS: COMPARING • Grades 3–5 • CCSS 3.NF

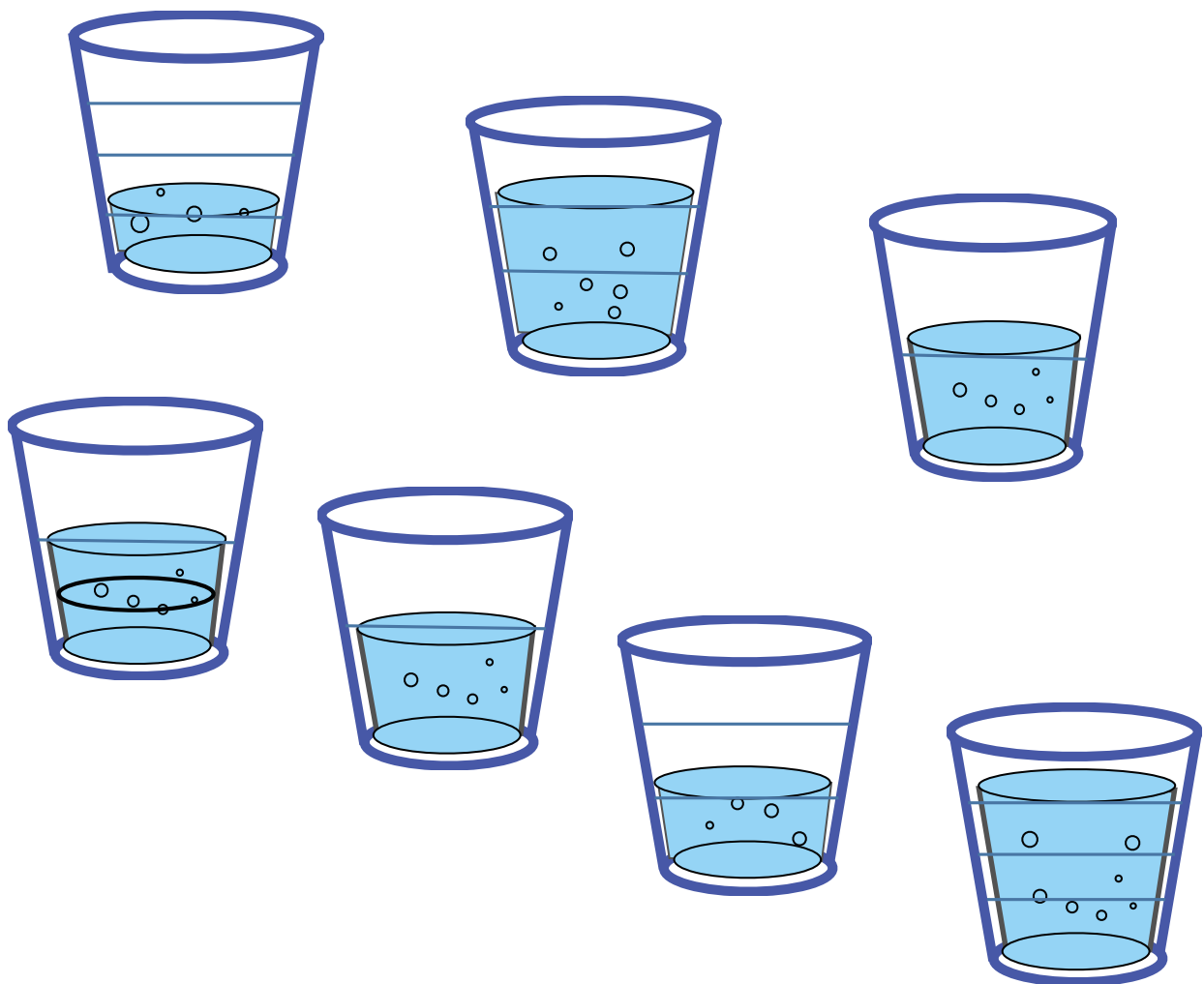
How many whole apples, pears,
and lemons were cut up?
How do you know?



FRACTIONS: MIXED NUMBER/IMPROPER FRACTION RELATIONSHIP • Grades 3–5 • CCSS 4.NF

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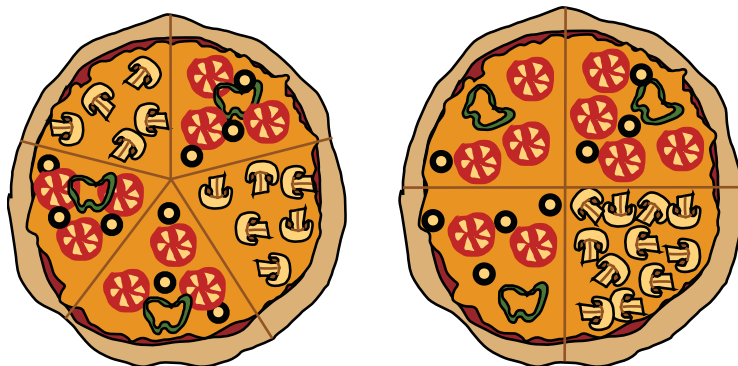
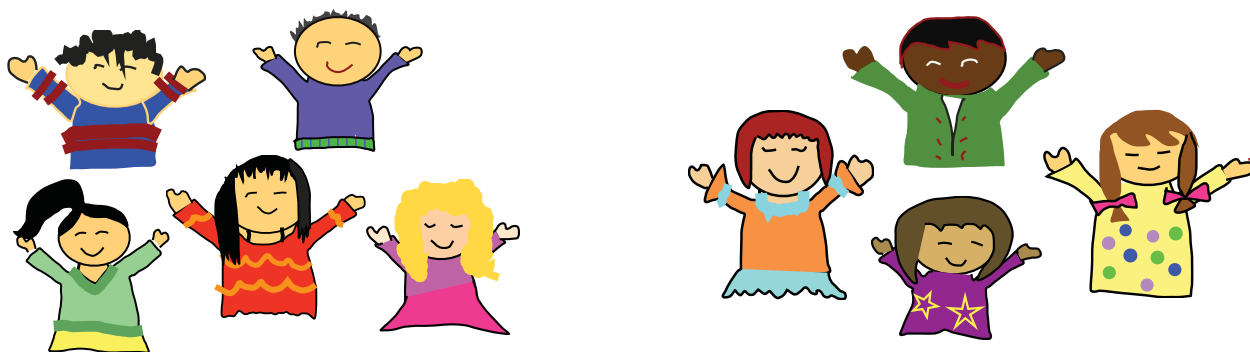
You are going to combine the juice from different glasses, and you have to predict how full the glasses will be afterward.
Which amounts are easiest to predict?
Why?



FRACTIONS: COMMON DENOMINATORS • Grades 3–5 • CCSS 4.NF

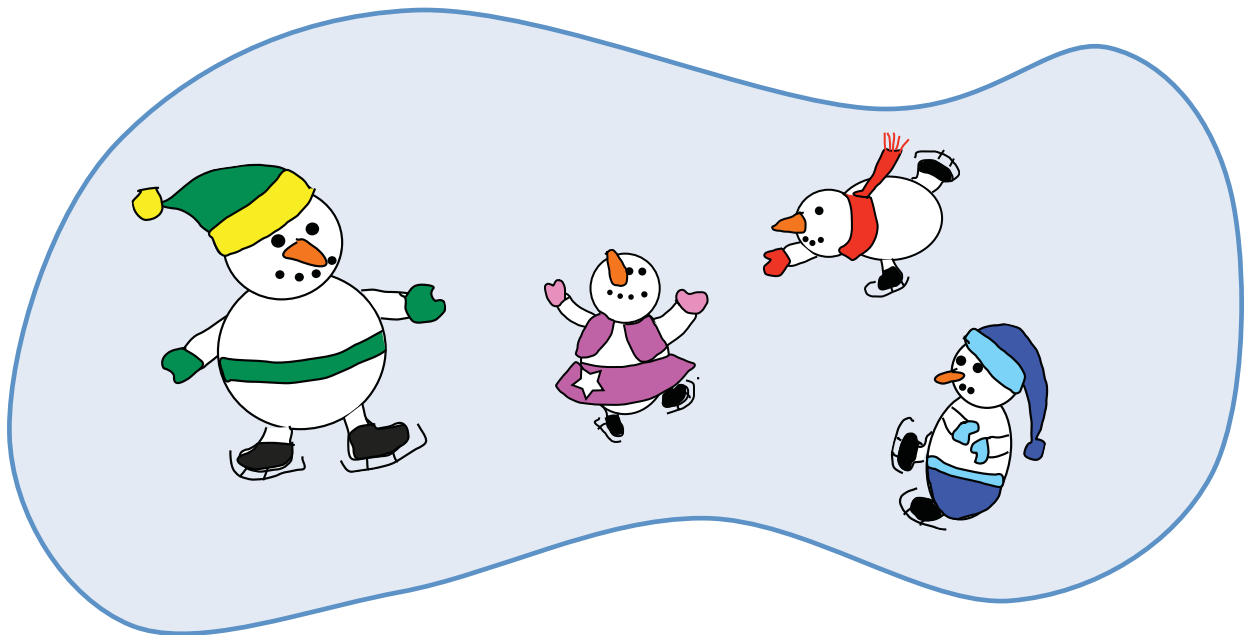
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Is the fraction of the children that are boys the same as the fraction of a single new pizza that could be made using only the slices with mushrooms?



ADDING FRACTIONS • Grades 3–5 • CCSS 5.NF

A snowfather is skating with his snowchildren. What fraction of the group is not wearing a skirt? What fraction of the children is not wearing a skirt?



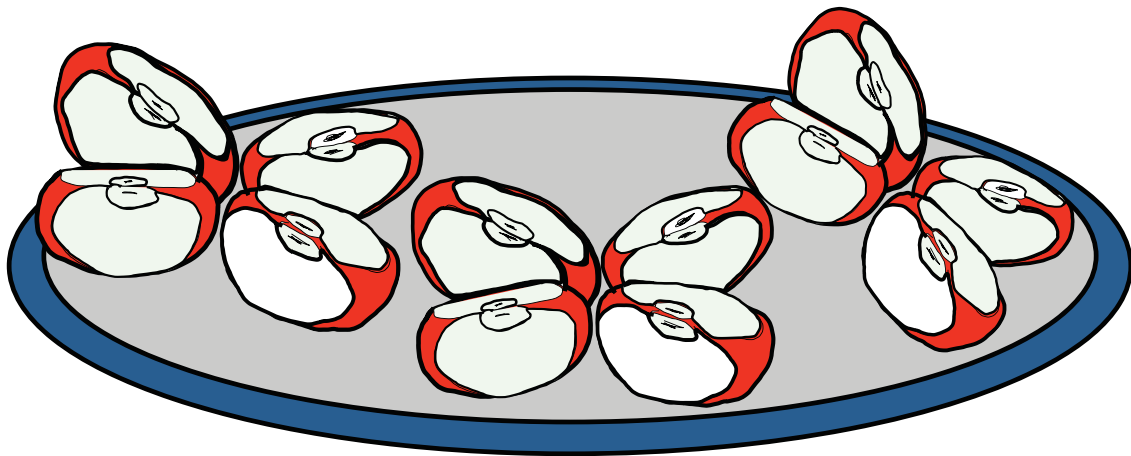
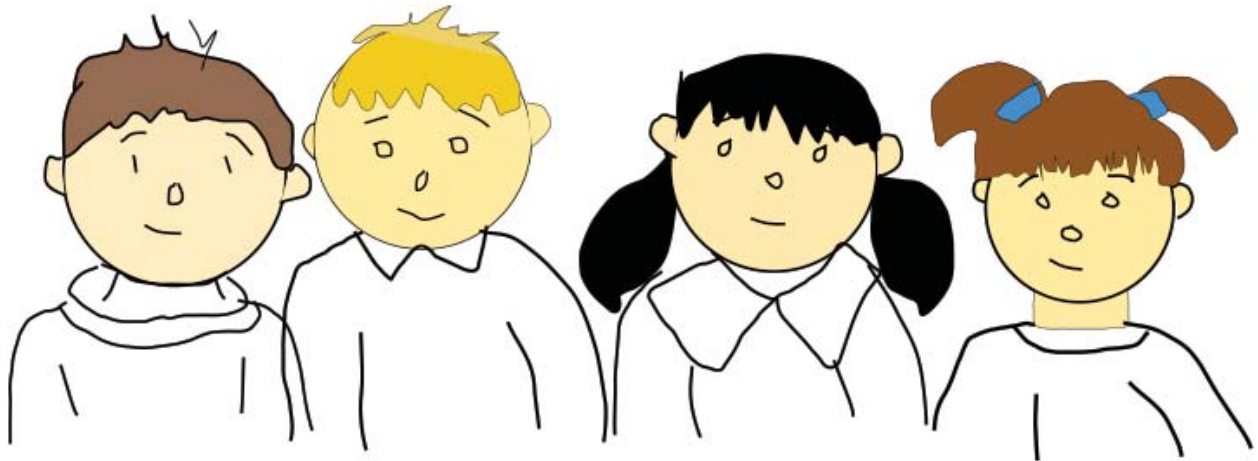
MULTIPLYING FRACTIONS • Grades 3–5 • CCSS 5.NF

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One height is $\frac{7}{8}$ of another.
One height is $1\frac{1}{3}$ times another.
Which is which?



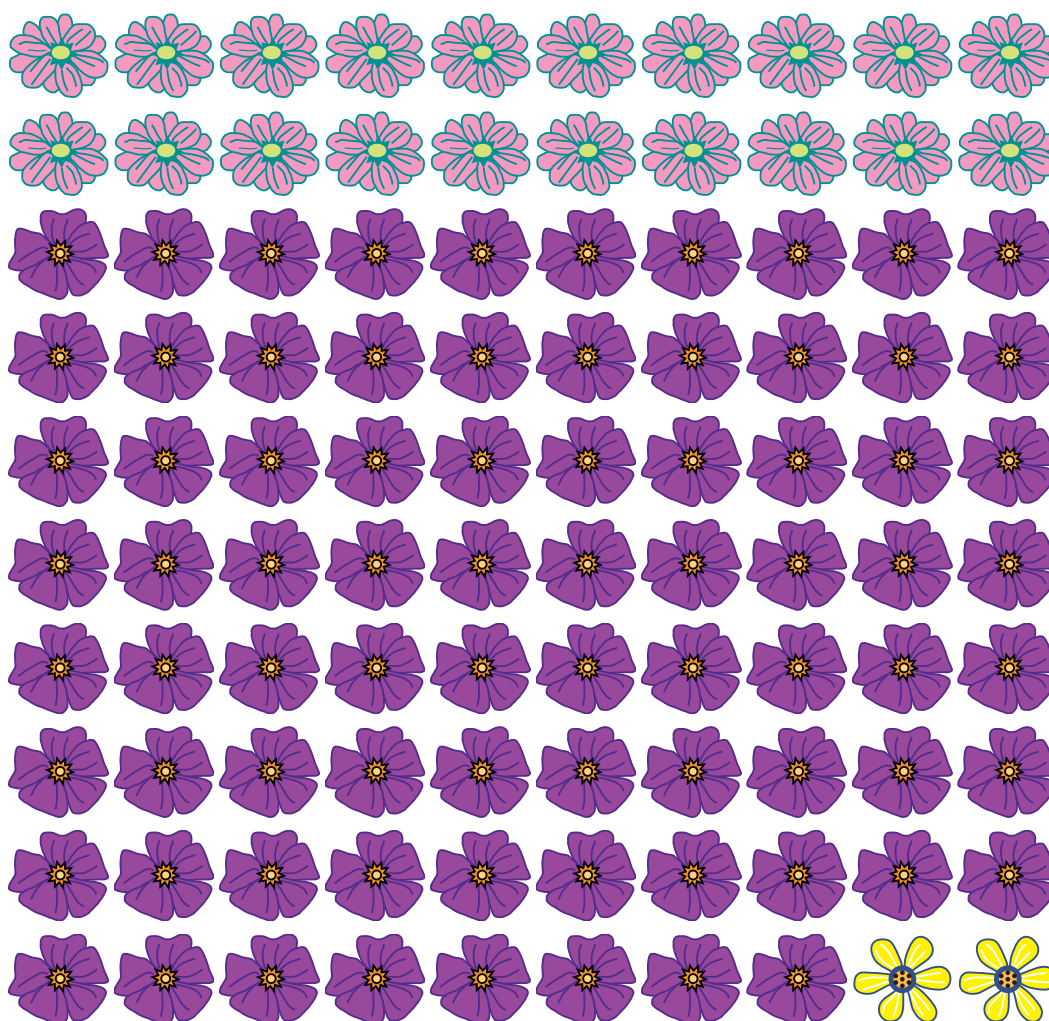
How much of an apple is each share?



FRACTIONS AS DIVISION • Grades 3–5 • CCSS 5.NF

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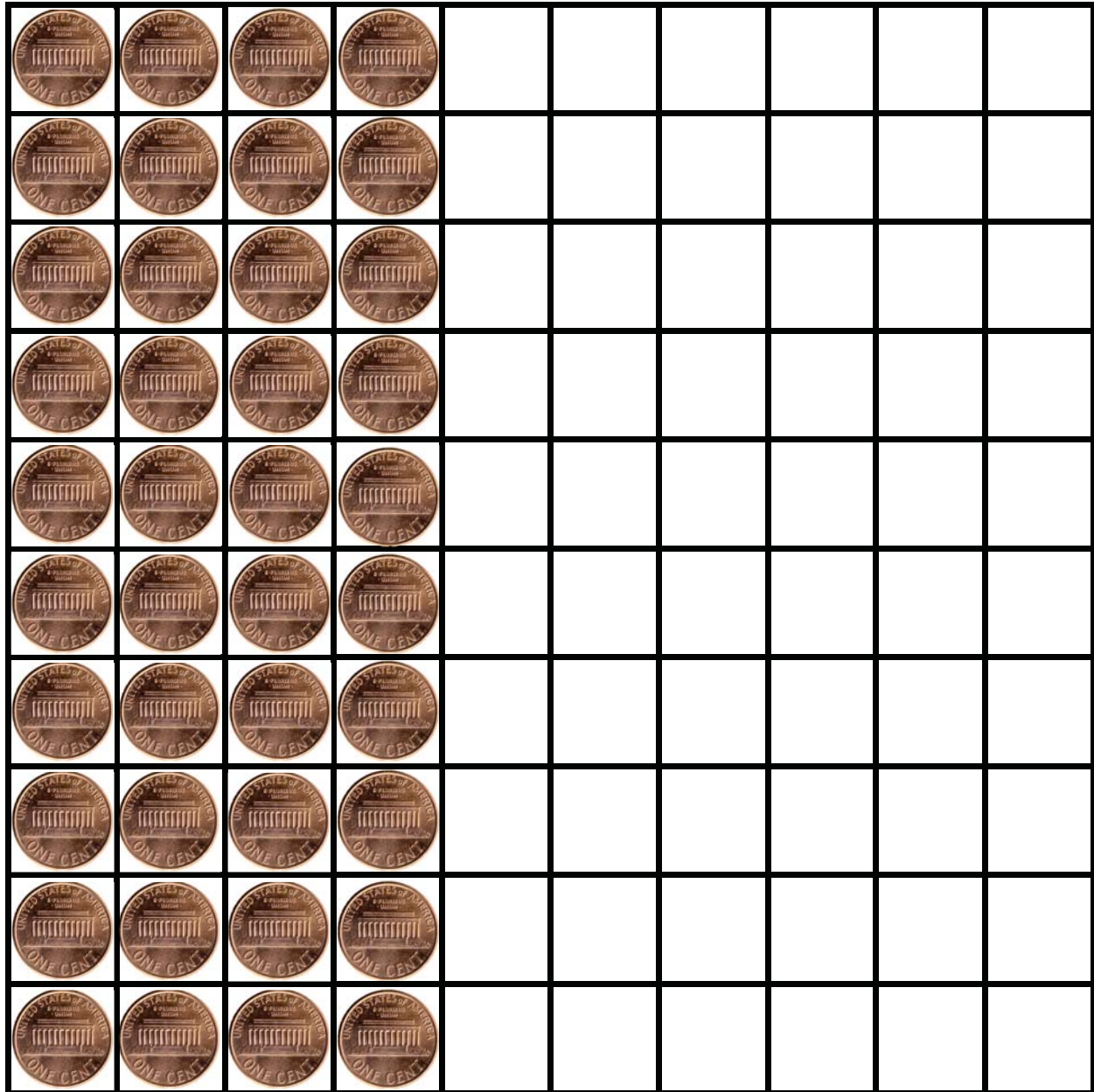
Why does this arrangement of flowers
make it easy to describe
0.2 and 0.02 of the flowers?
What other decimals of the flowers
are easy to describe?



DECIMALS: RELATING HUNDREDTHS TO TENTHS • Grades 3–5 • CCSS 4.NF

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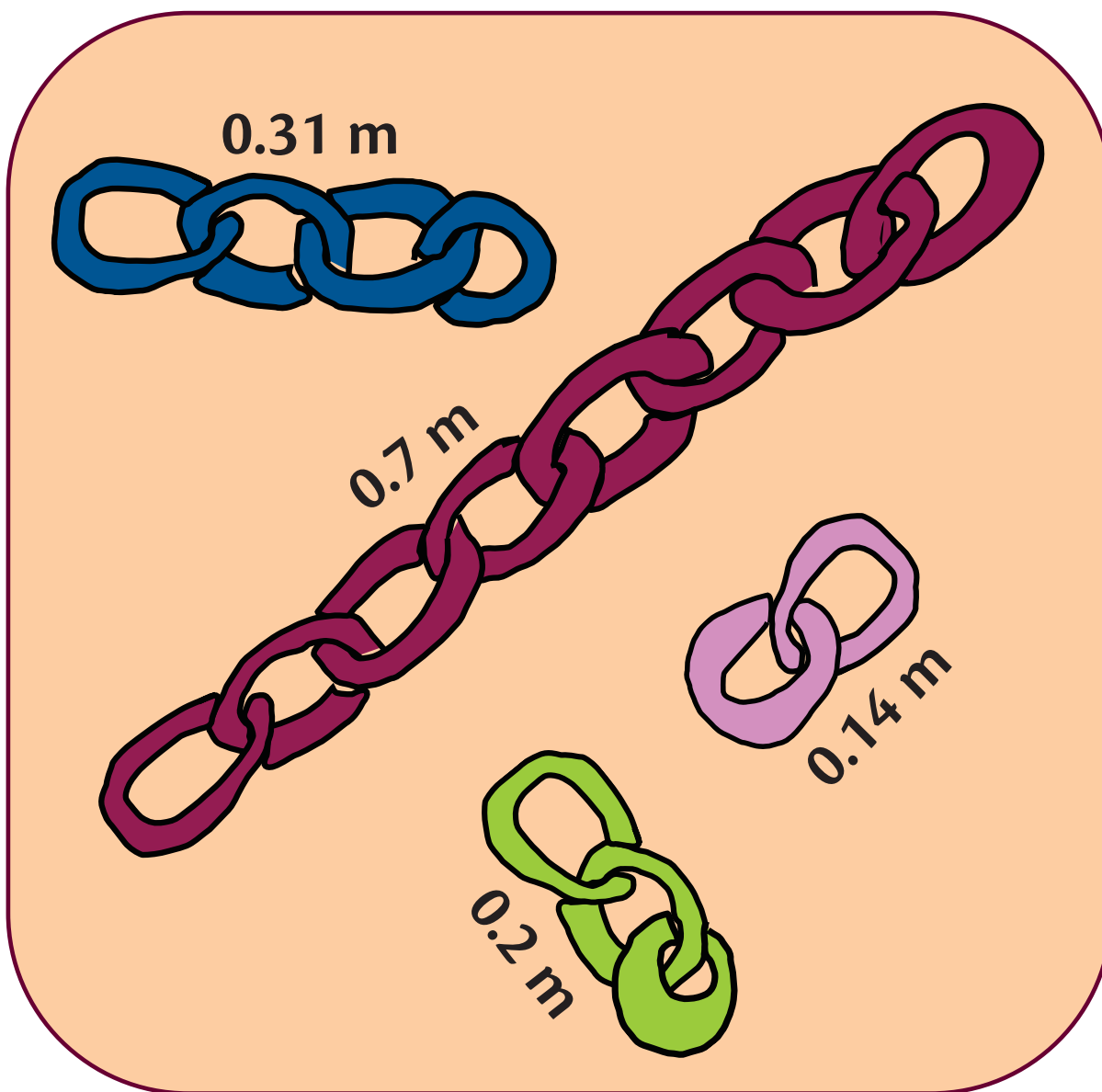
What two decimals could you use to describe how full of pennies the grid is?



DECIMALS: EQUIVALENCE • Grades 3–5 • CCSS 4.NF

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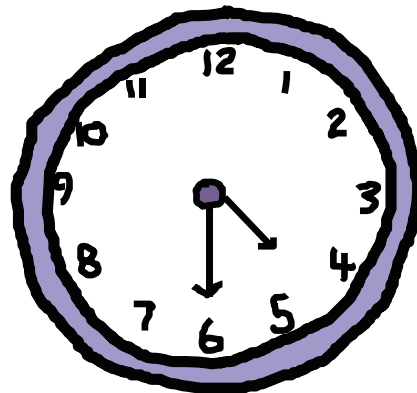
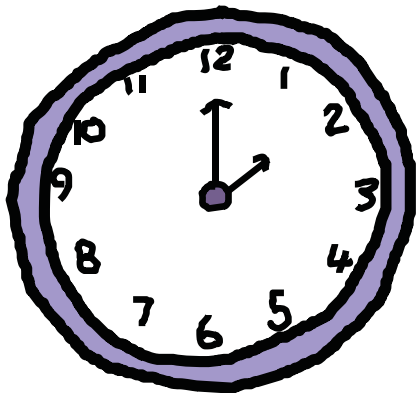
Which chains could you put together to have a total length of about 0.5 m?
Why those?



DECIMALS: ADDING AND SUBTRACTING • Grades 3–5 • CCSS 5.NBT

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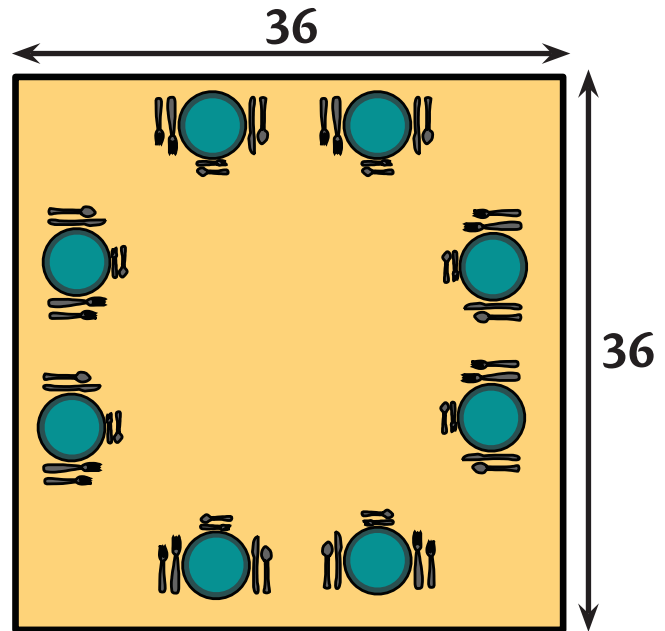
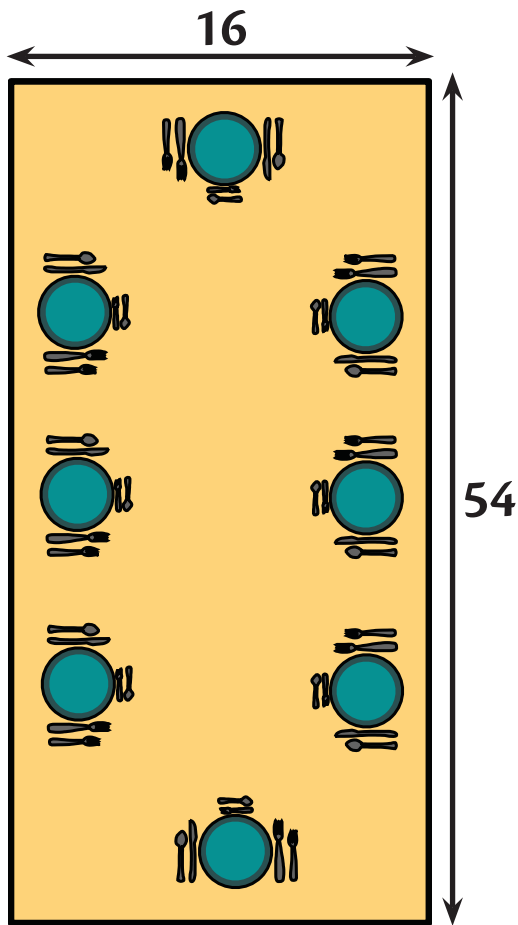
Was this a long nap or a short nap?



MEASUREMENT: TIME INTERVALS • Grades 3–5 • CCSS 3.MD

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Which table has more space?



MEASUREMENT: AREA OF RECTANGLES • Grades 3–5 • CCSS 3.MD

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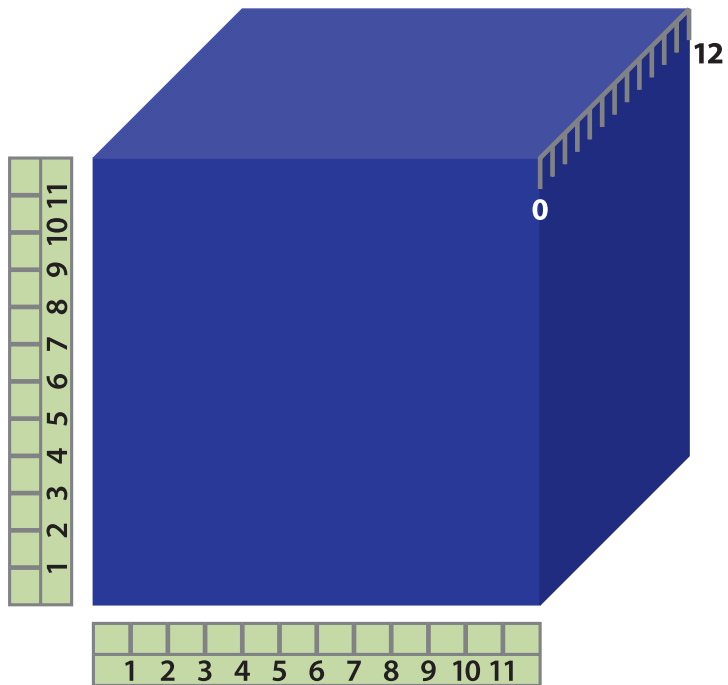
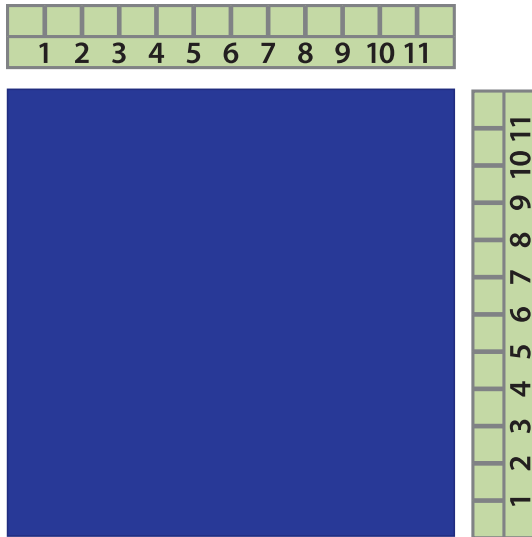
How can you use a ruler to estimate
the perimeter?

How can you use a ruler to estimate
the area?



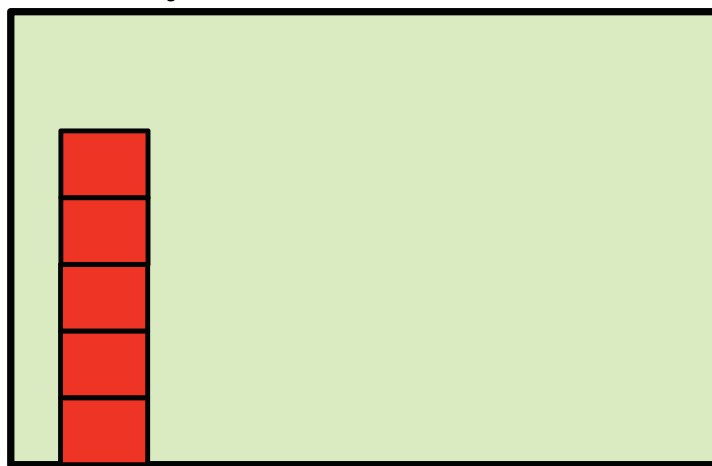
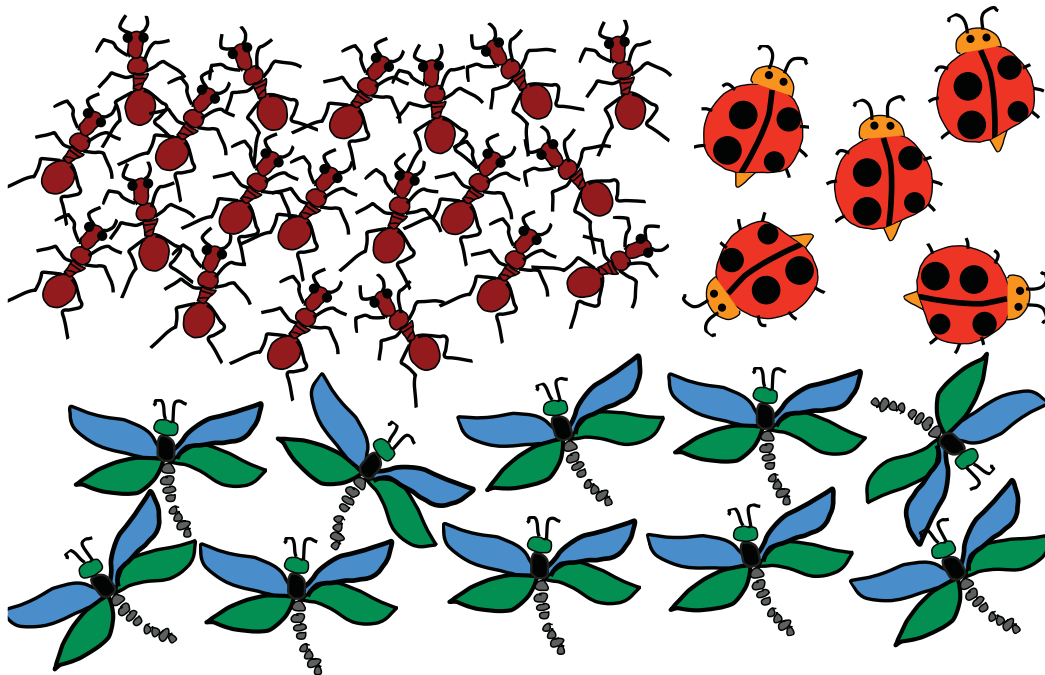
PERIMETER VERSUS AREA • Grades 3–5 • CCSS 3.MD

How many cubic inches would 10 cubic feet be?



MEASUREMENT CONVERSIONS • Grades 3–5 • CCSS 4.MD, 5.MD

How can you change the graph to fit all of the information about the insects inside the green box?



Ladybugs

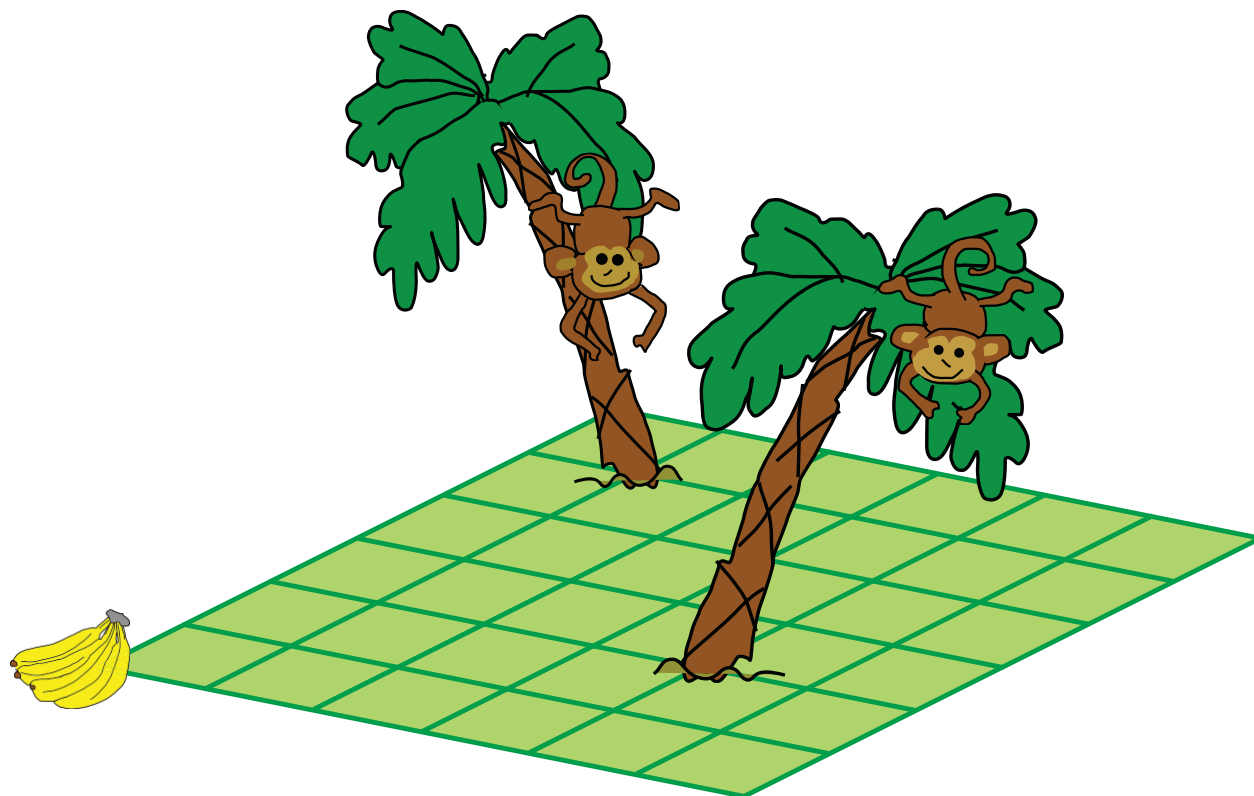
Ants

Dragonflies

GRAPHS WITH SCALES • Grades 3–5 • CCSS 3.MD

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Which monkey's tree is closer to the bananas?

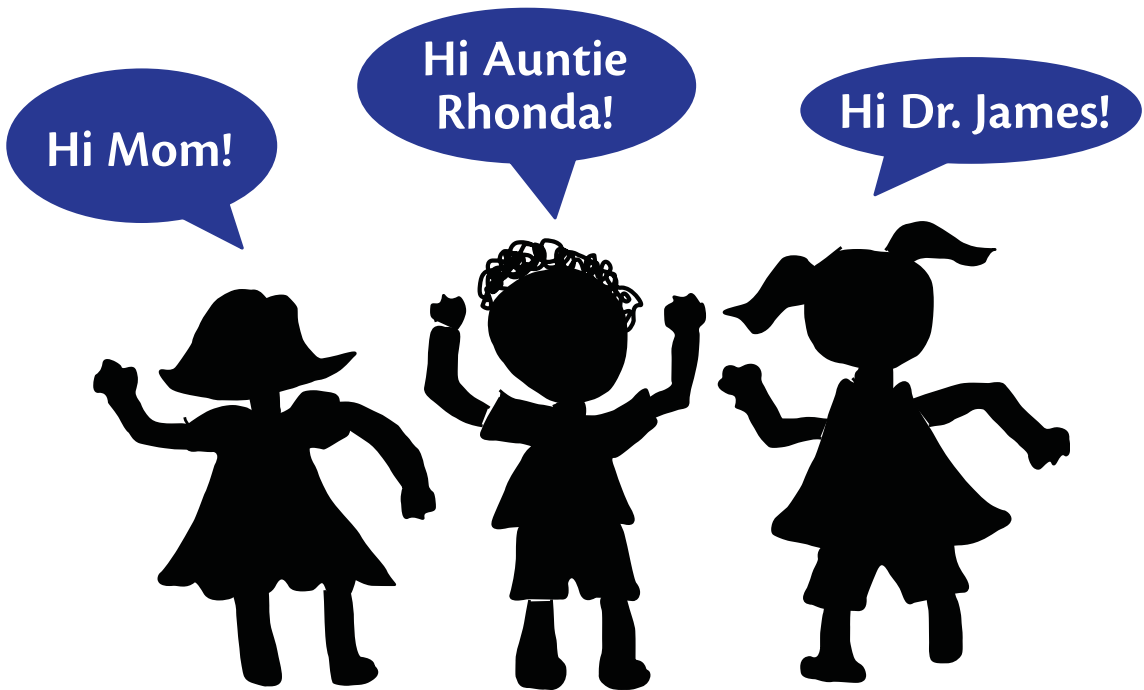


COORDINATE GRIDS • Grades 3–5 • CCSS 5.G

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People can have many names.

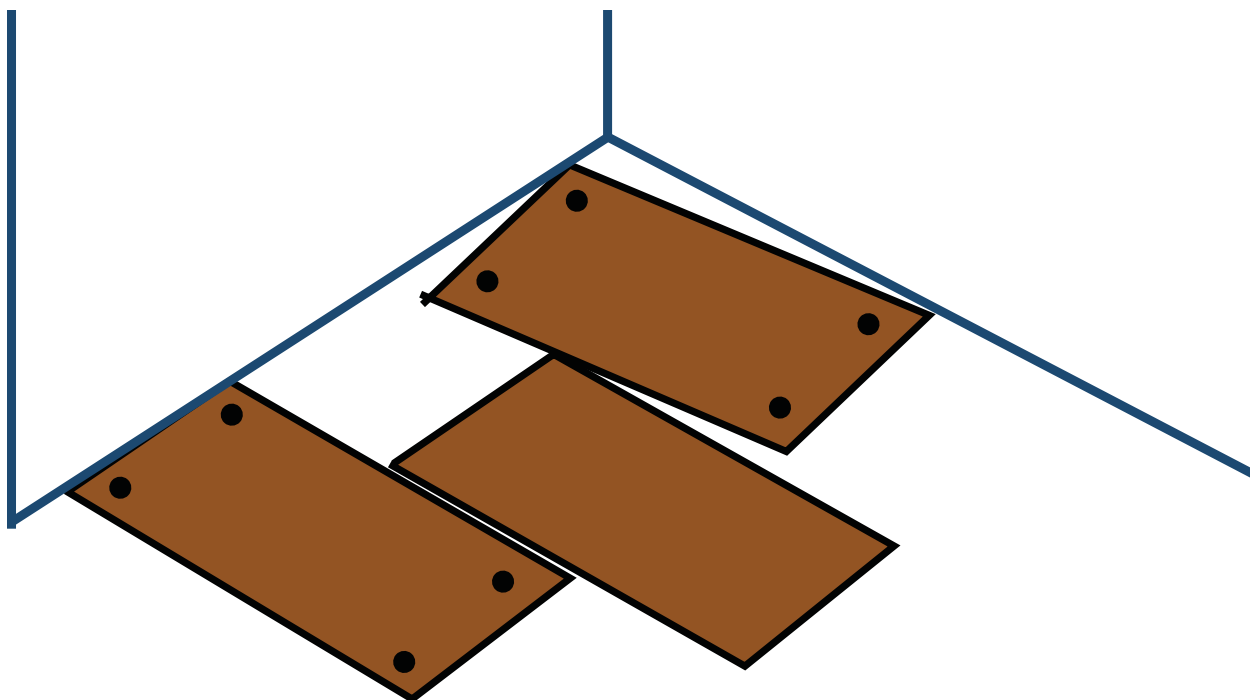
What different names
could you give this shape?



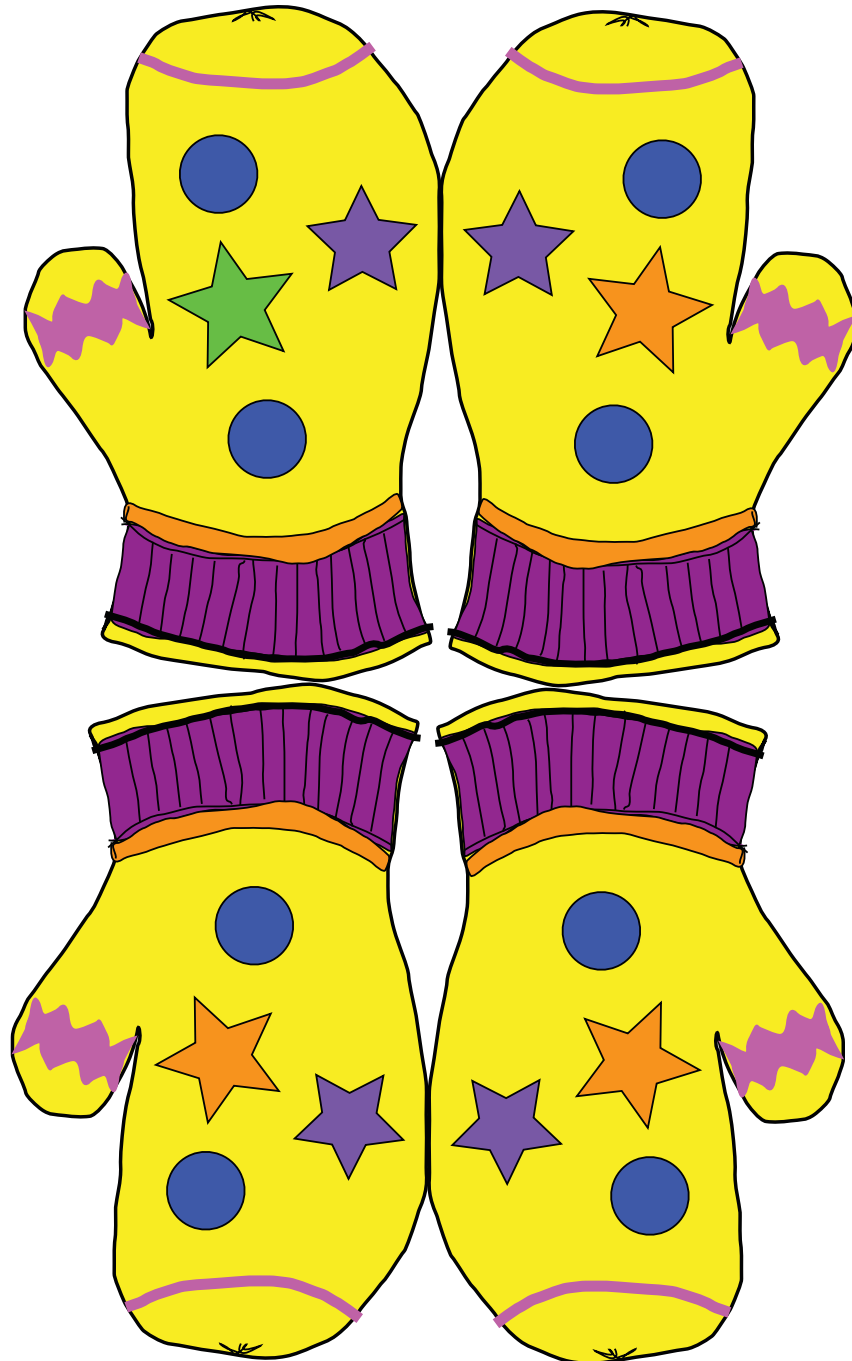
CLASSIFICATION OF SHAPES • Grades 3–5 • CCSS 5.G

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How can you be sure the floorboards are not parallel to each other?



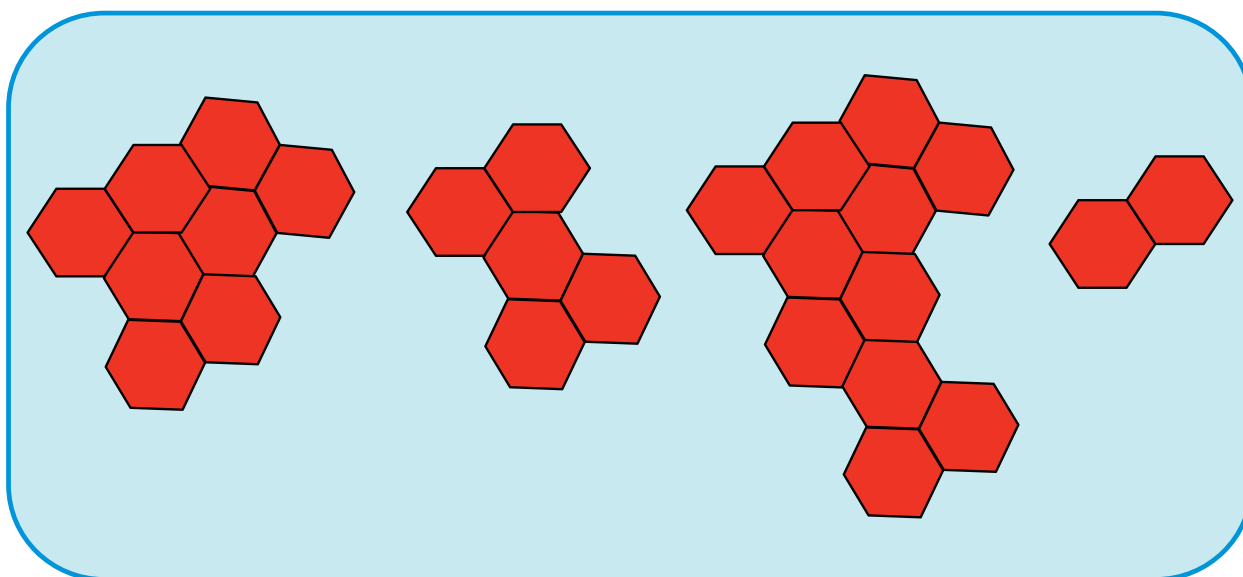
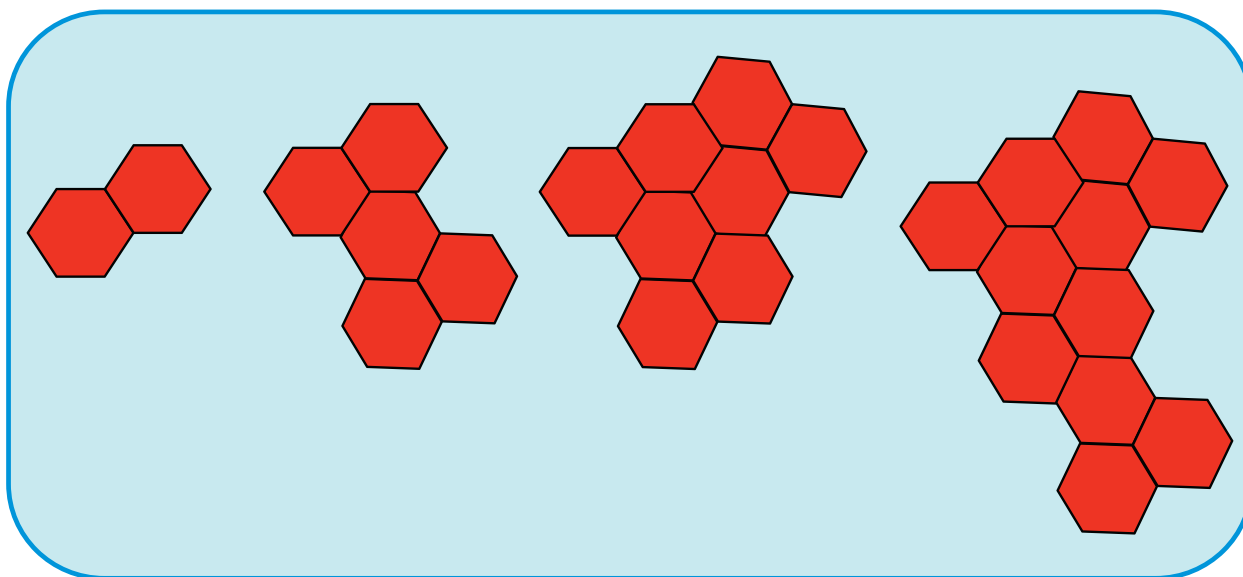
Does this picture show symmetry?



LINES OF SYMMETRY • Grades 3–5 • CCSS 4.G

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Which would you call a pattern? Why?

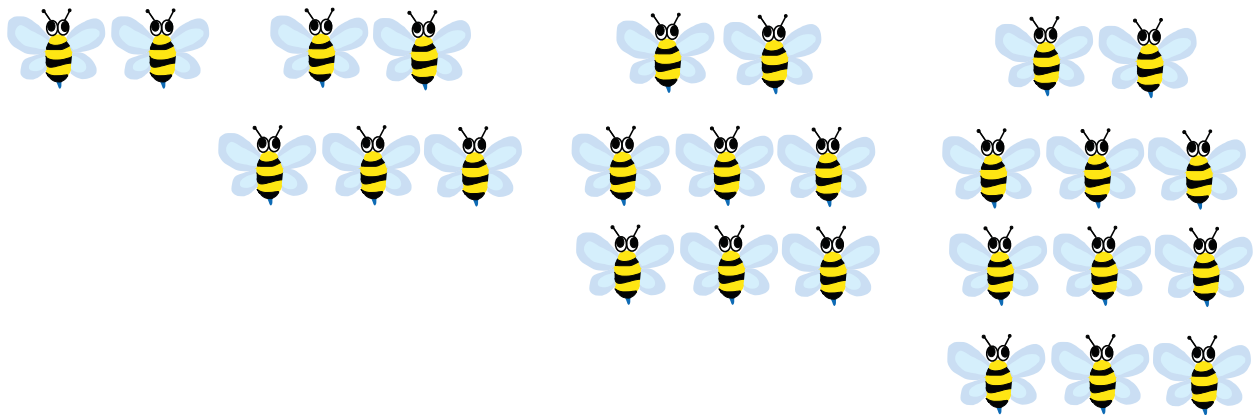


PATTERNS VERSUS NON-PATTERNS • Grades 3–5 • CCSS 4.OA

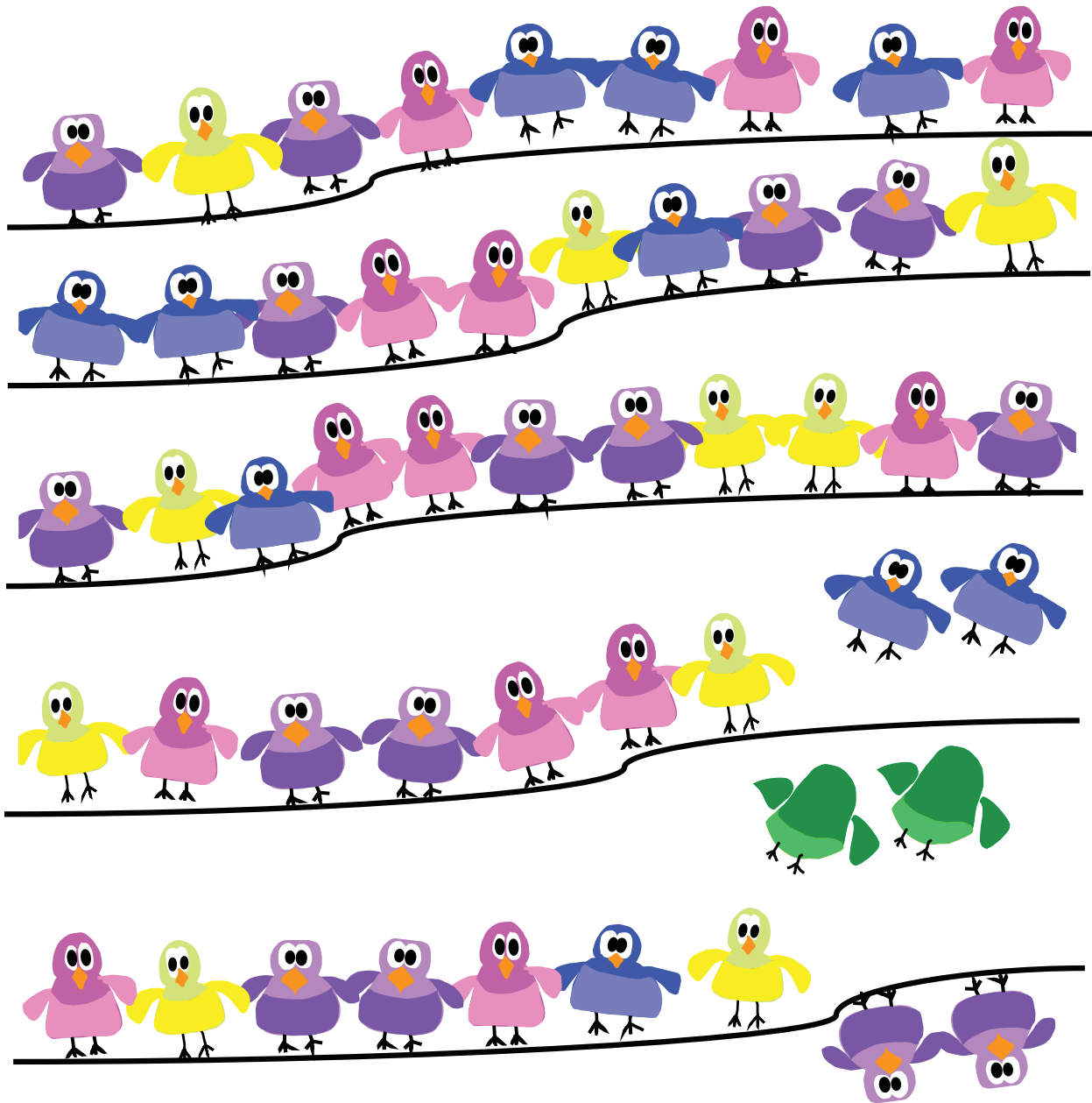
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At first, there were two bees.
More and more groups of three bees
join them.

If this continues, what are some
numbers of bees there could be and some
numbers of bees there could not be?



How many birds might be left after a lot of pairs leave?



ALGEBRAIC THINKING: SHRINKING ADDITIVELY • Grades 3–5 • CCSS 4.OA

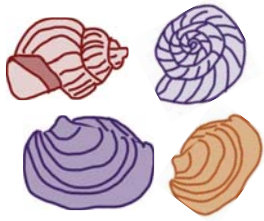
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Whose collection will grow faster?

Day 1



Day 2



Day 3



Day 4



Jamie's Collection



Shemin's Collection

ALGEBRAIC THINKING: GROWING MULTIPLICATIVELY • Grades 3–5 • CCSS 5.OA

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