

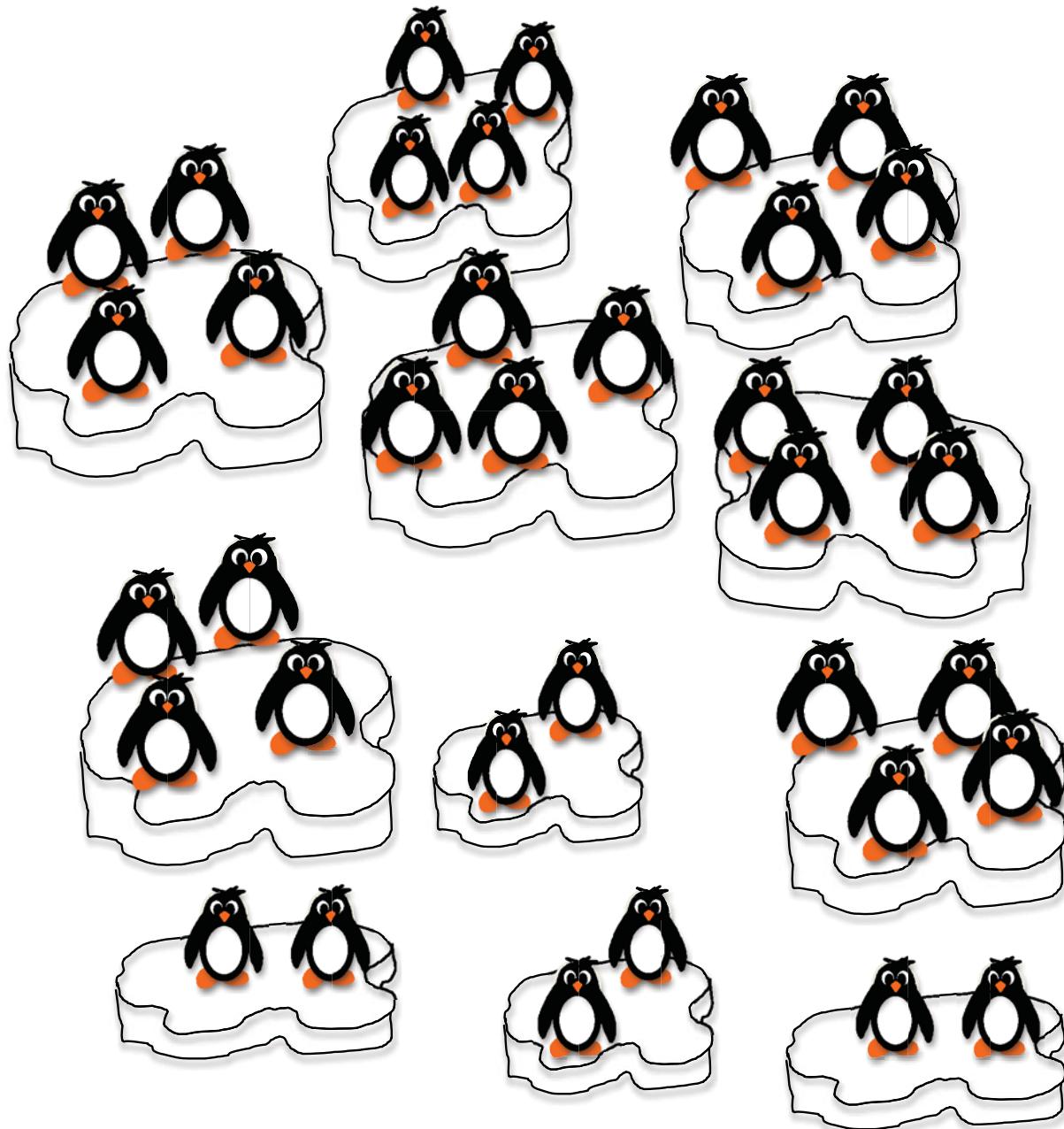


# *Eyes on Math*

## Pictures for Grades 3–5

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Multiplication: Commutativity.....	3.OA .....	82–83 .....	3
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Can you write  $\square \times \square$  to describe  
this picture?

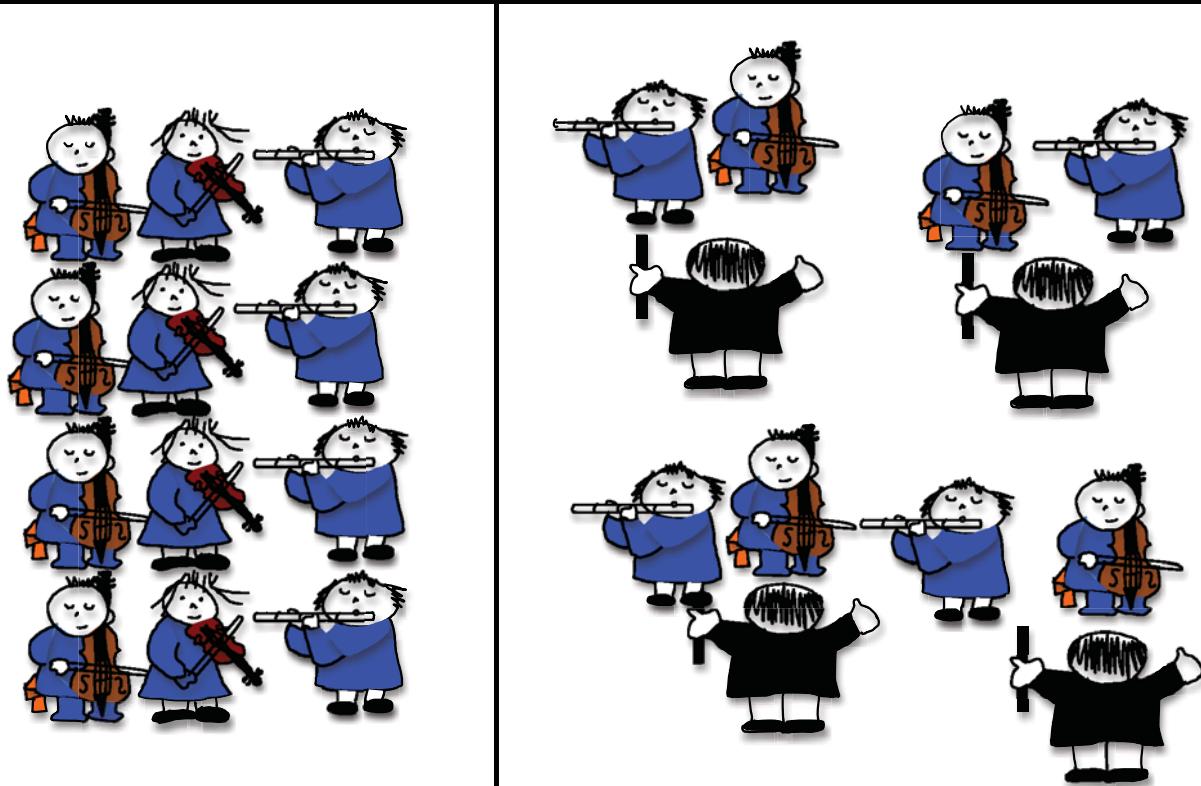


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**MULTIPLICATION: EQUAL GROUPS • Grades 3–5 • CCSS 3.OA**

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



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

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

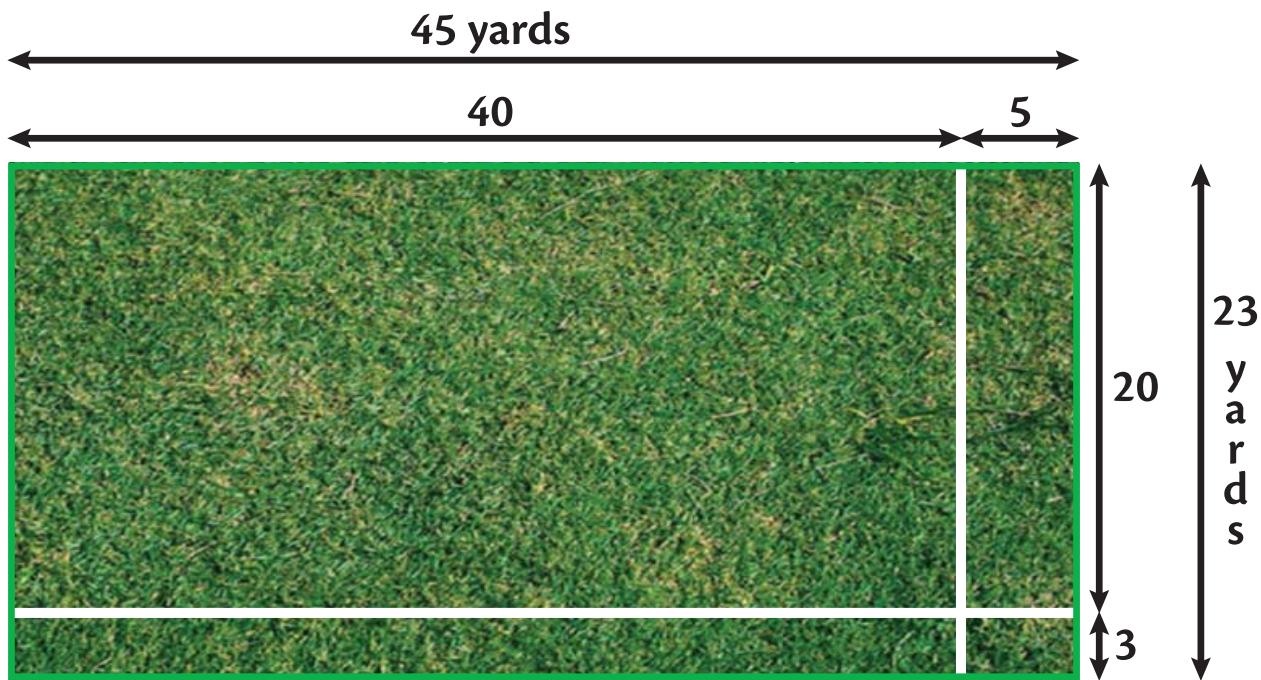


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MULTIPLICATION: THE DISTRIBUTIVE PRINCIPLE • Grades 3–5 • CCSS 3.OA

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

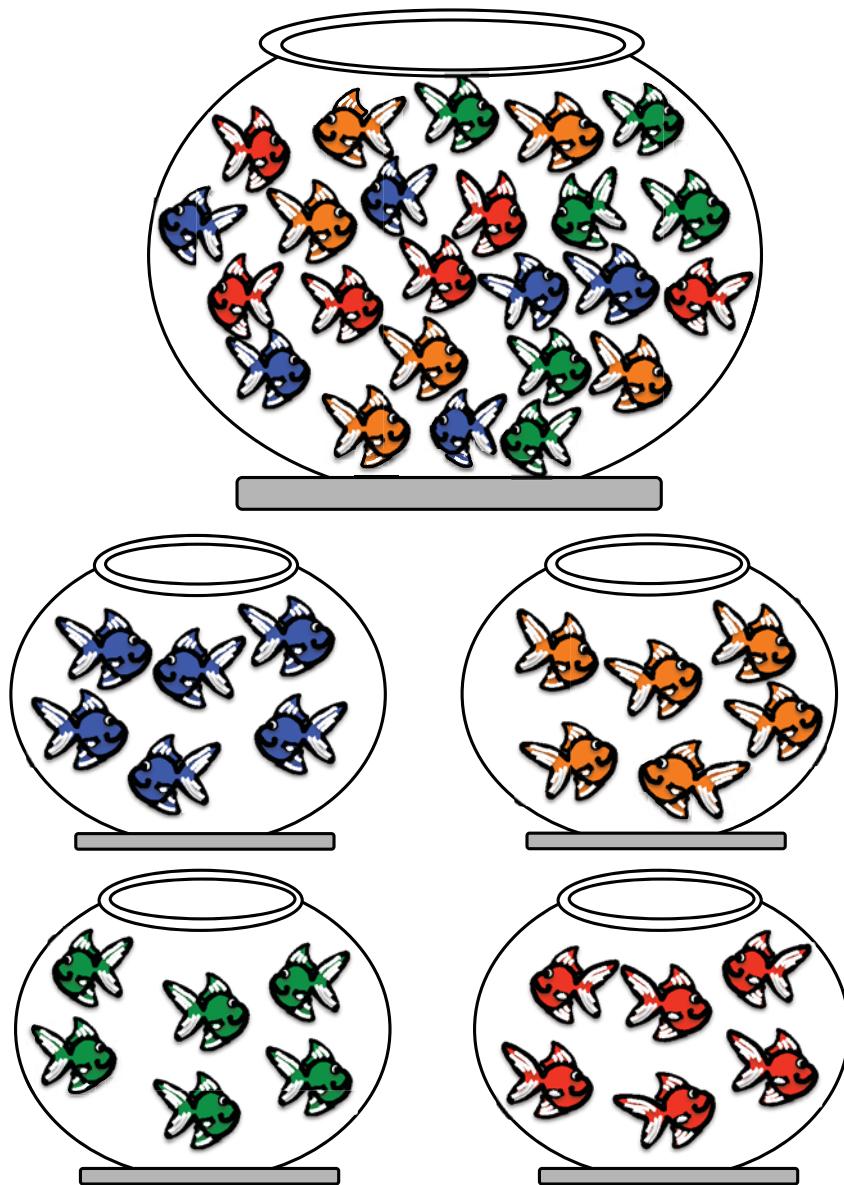


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**MULTIPLICATION: 2-DIGIT BY 2-DIGIT • Grades 3–5 • CCSS 4.NBT**

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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?



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

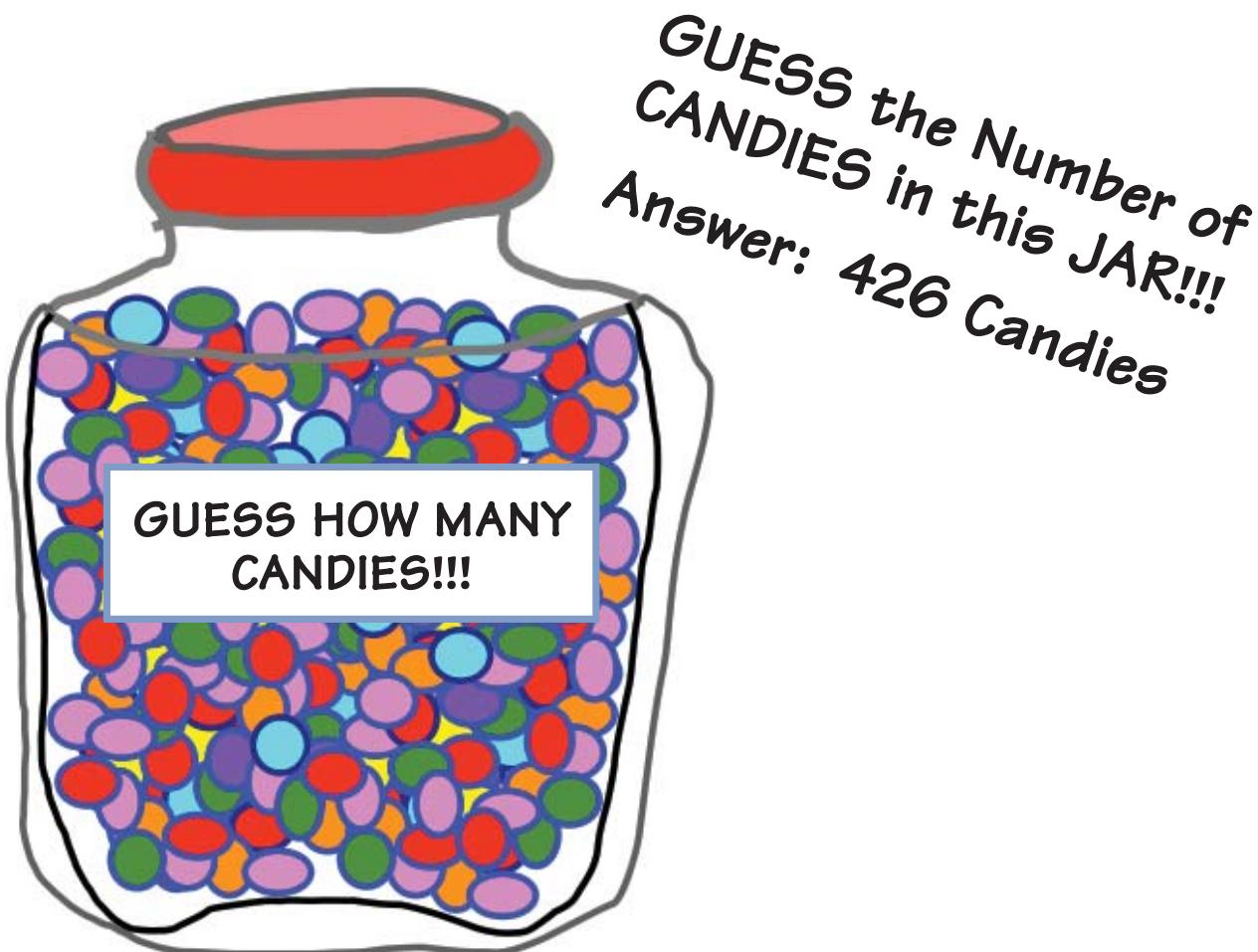
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# Where are the remainders in each picture? What does “remainder” mean?



Which would you say:

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

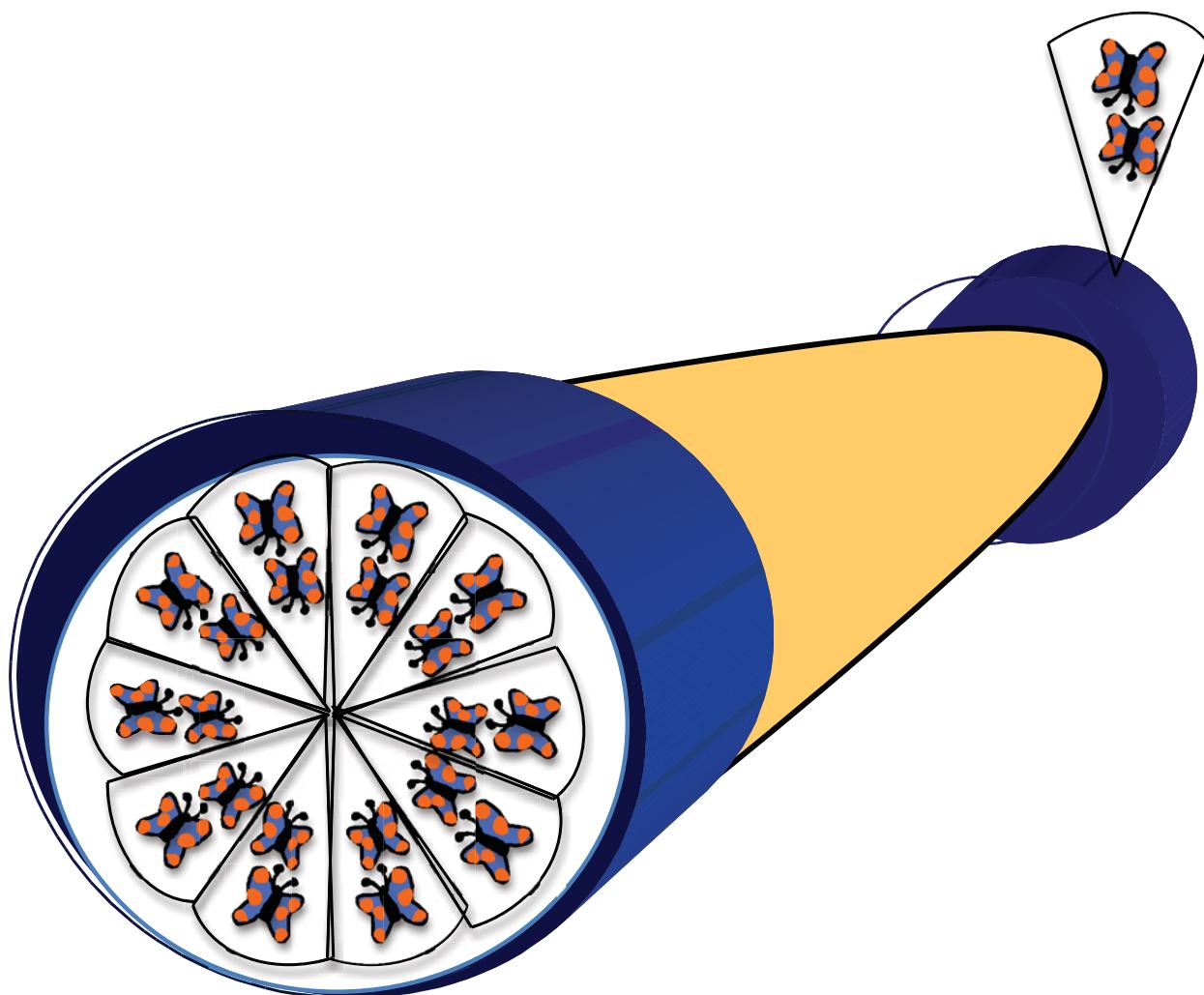


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ROUNDING NUMBERS • Grades 3–5 • CCSS 3.NBT

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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?

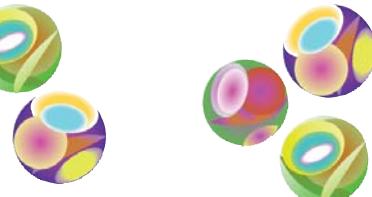
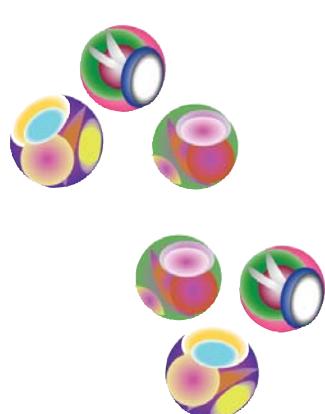


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PLACE VALUE: RENAMING NUMBERS • Grades 3–5 • CCSS 4.NBT

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# How many people could share 18 marbles fairly?

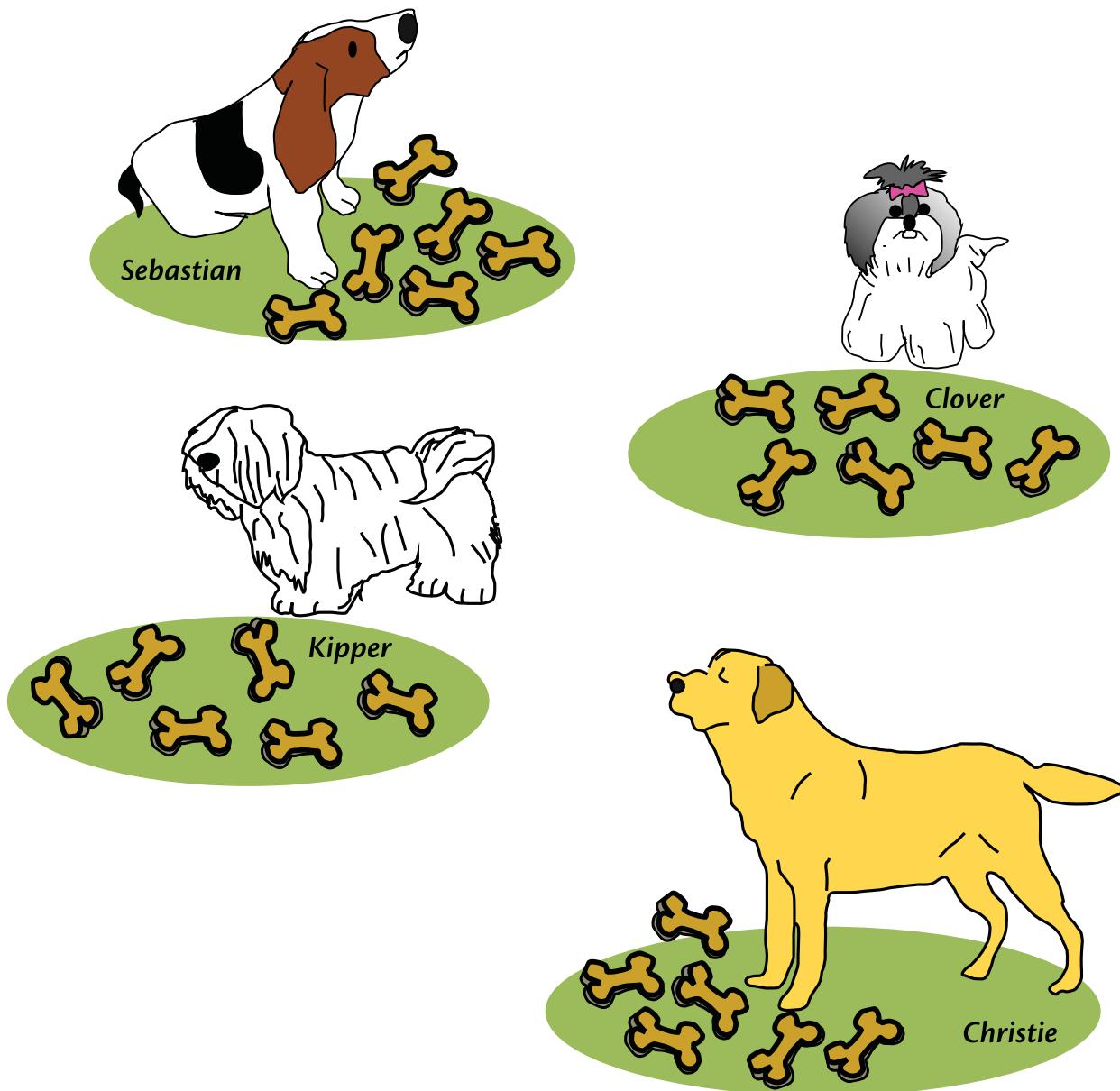


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**FACTORS: WHAT THEY ARE • Grades 3–5 • CCSS 4.OA**

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

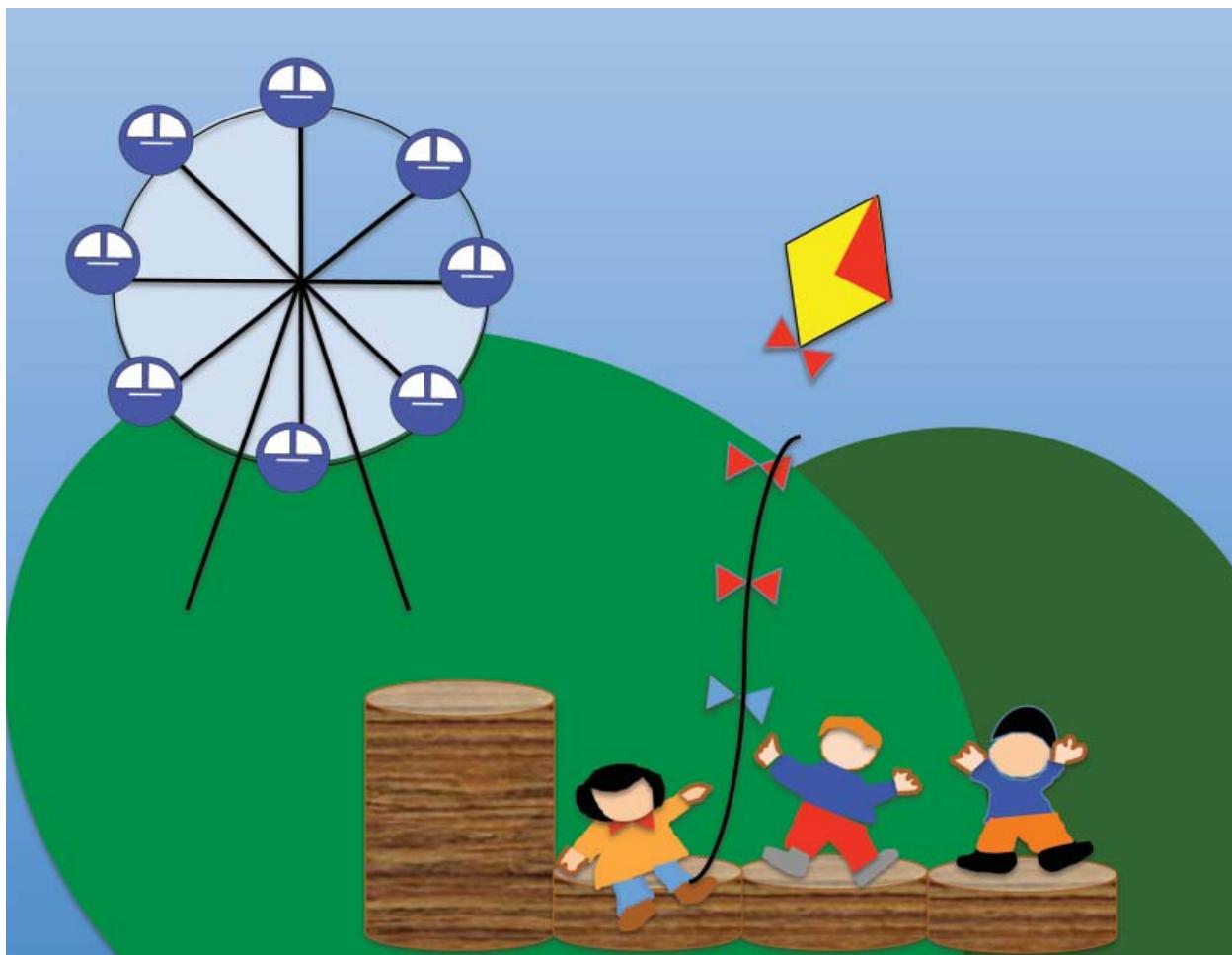


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FACTORS COME IN PAIRS • Grades 3–5 • CCSS 4.OA

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# What does this picture show about fractions?

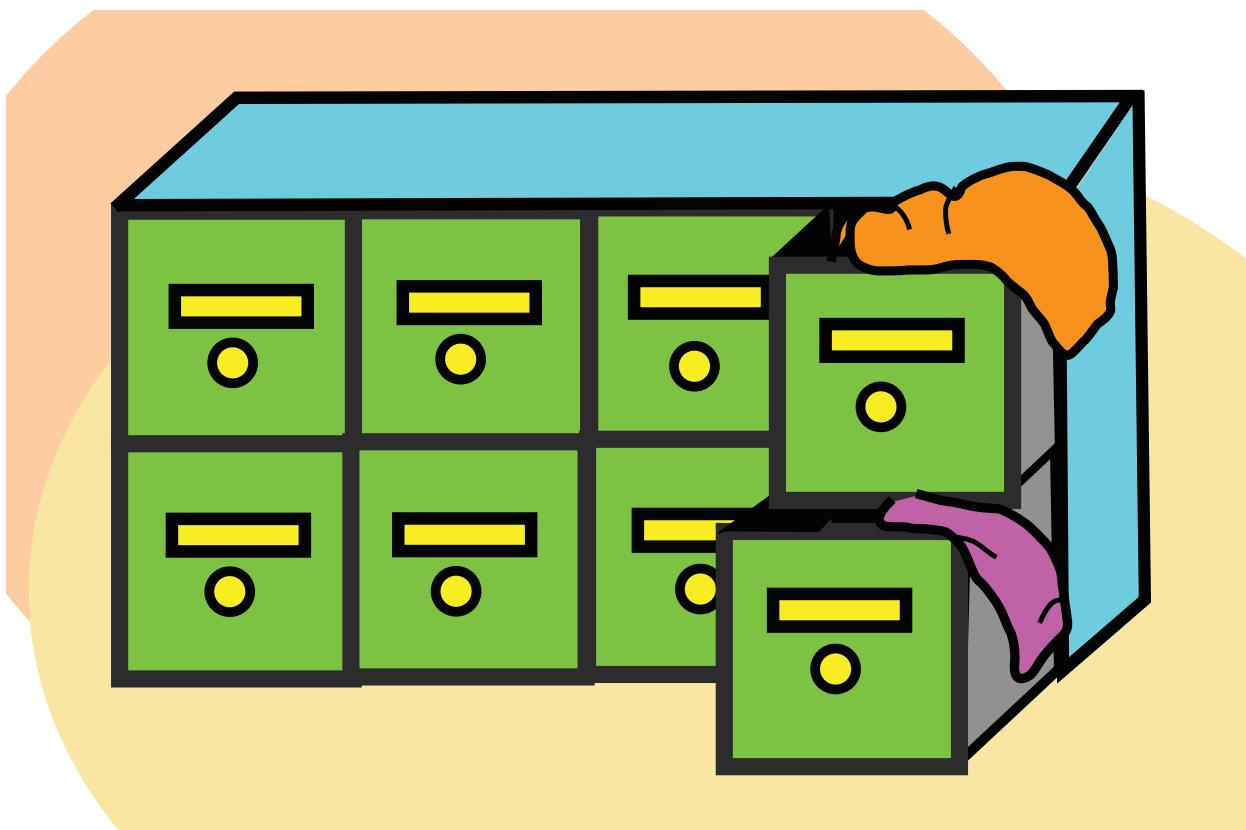


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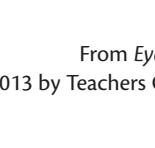
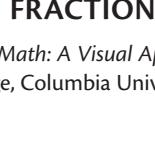
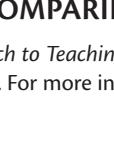
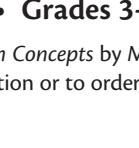
## FRACTIONS: REPRESENTING • Grades 3–5 • CCSS 3.NF

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# How can you describe the cabinet using fractions?



# 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
				
Monday	Tuesday	Wednesday	Thursday	Saturday
				
Monday	Tuesday	Wednesday	Thursday	Saturday
				

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

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



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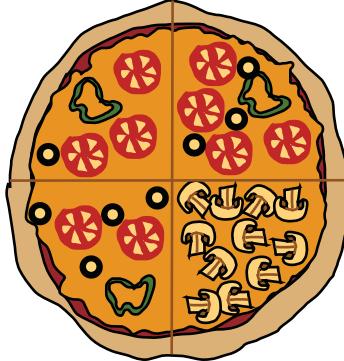
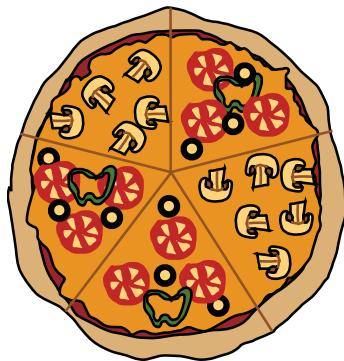
FRACTIONS: MIXED NUMBER/IMPROPER FRACTION RELATIONSHIP • Grades 3–5 • CCSS 4.NF

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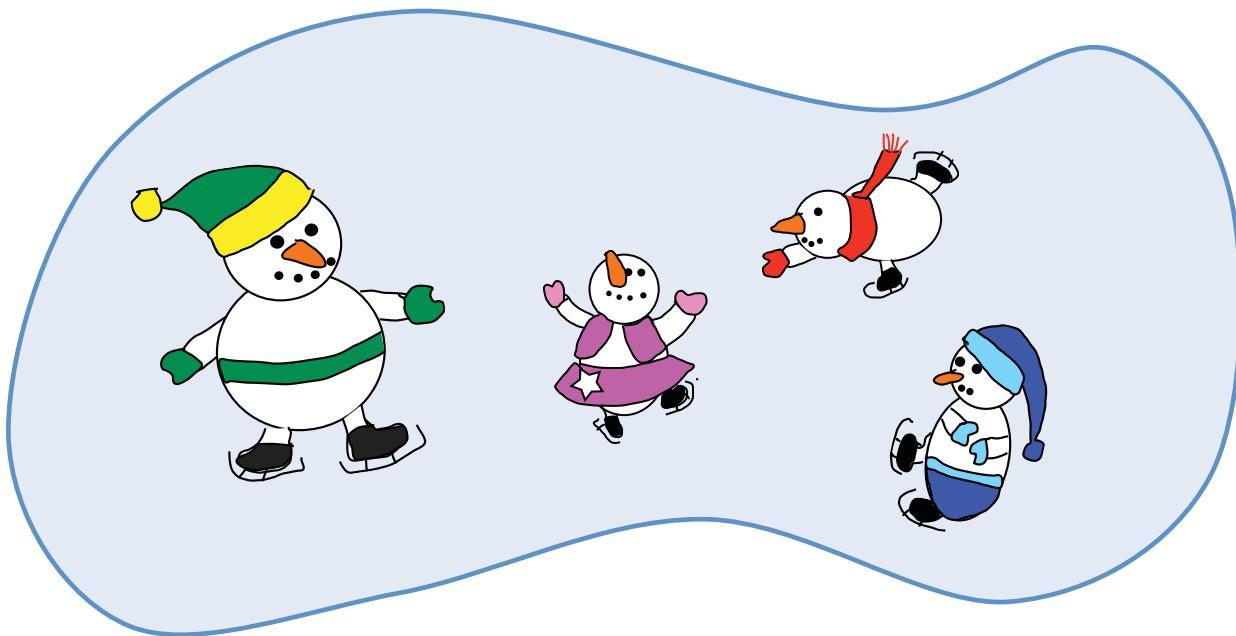
You are going to combine the juice from different glasses, and you have to predict how full the glasses will be afterward. Which amounts are easiest to predict? Why?



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?



**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?**



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

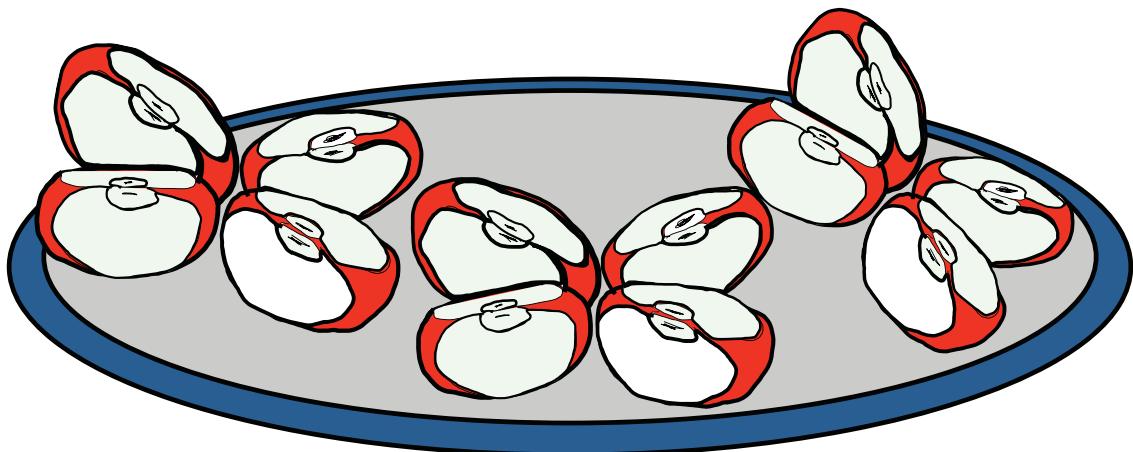
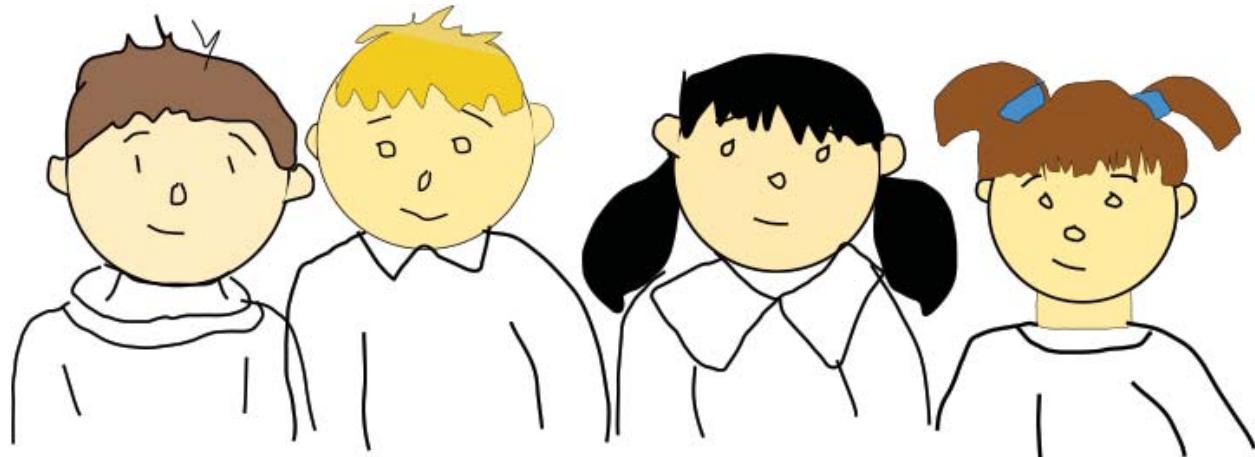


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**FRACTIONS: MULTIPLYING AS RESIZING • Grades 3–5 • CCSS 5.NF**

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# How much of an apple is each share?

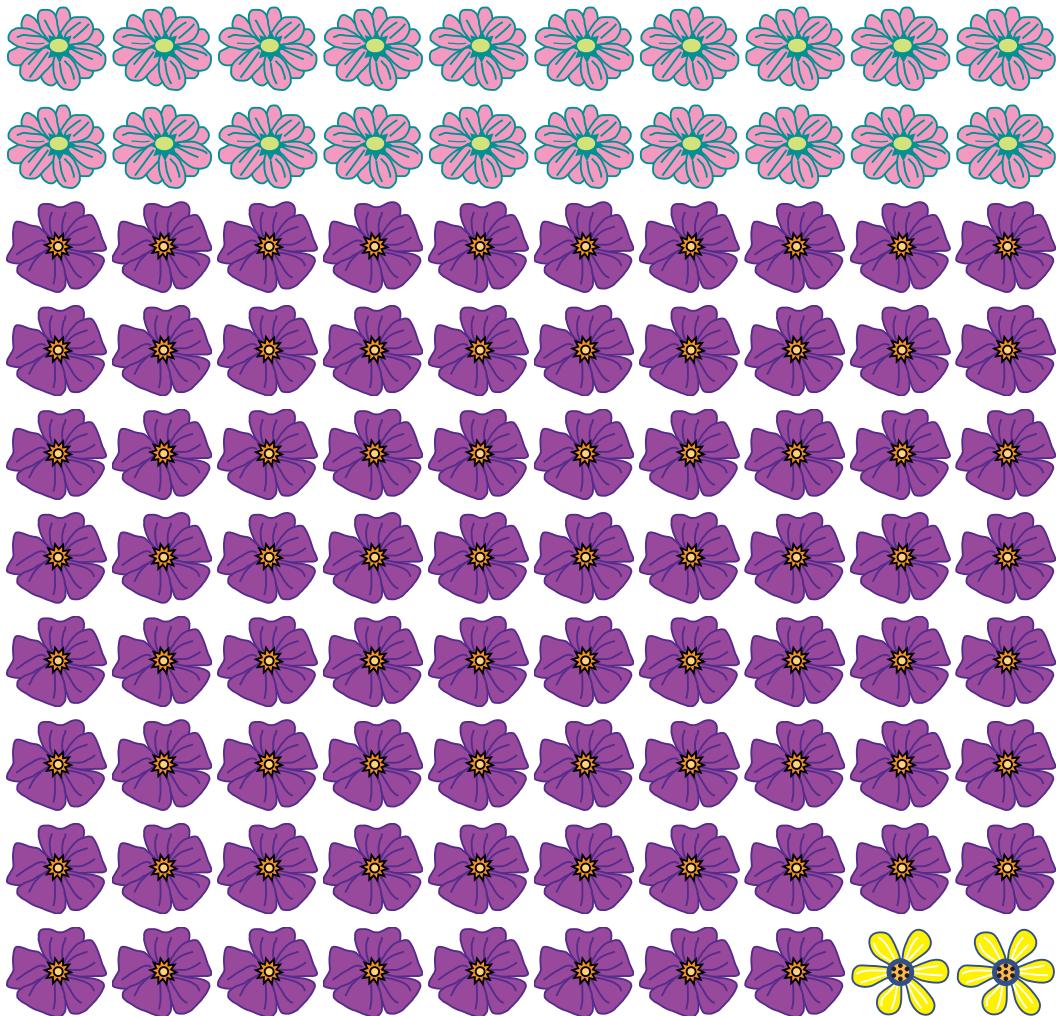


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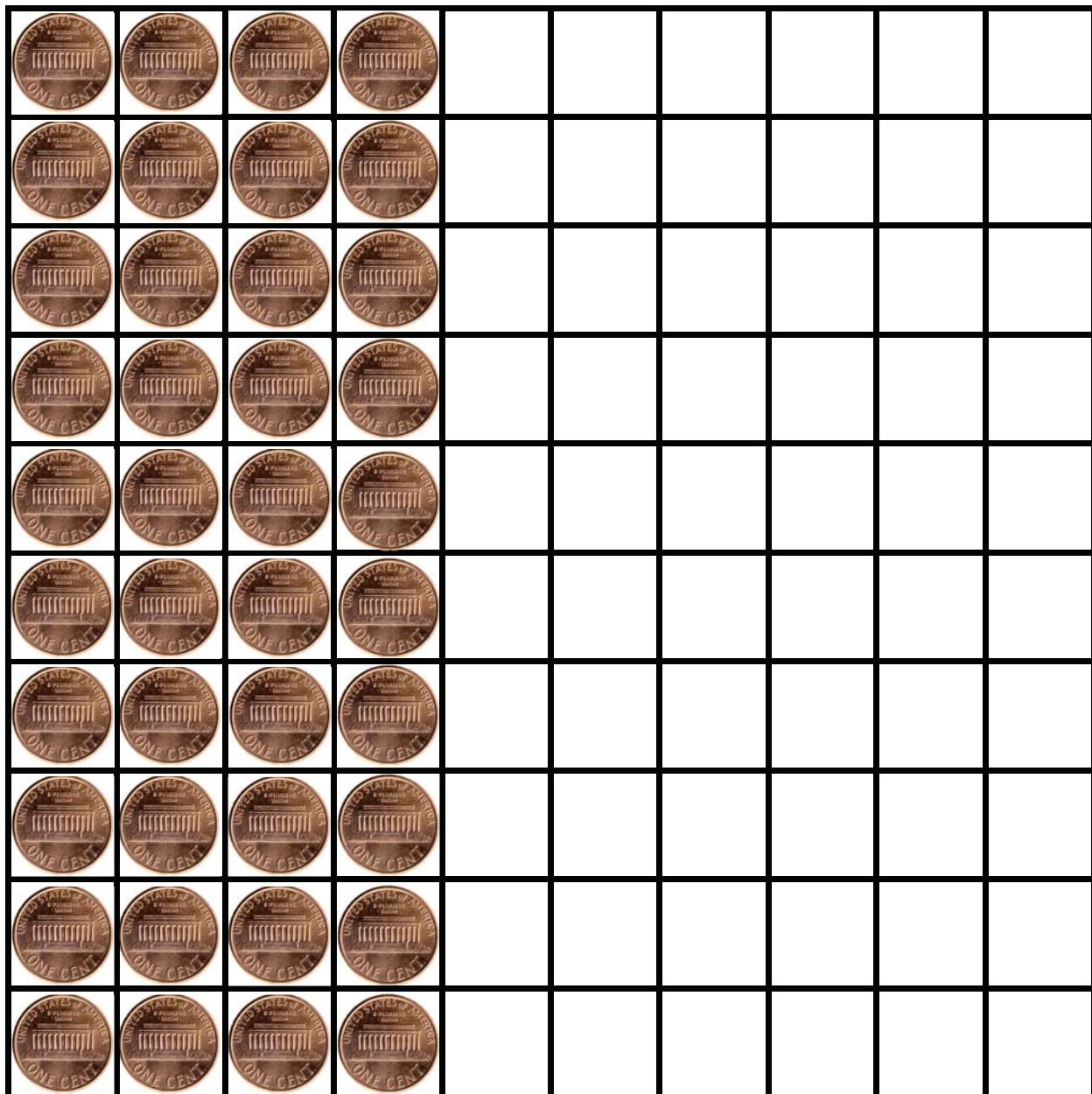
## FRACTIONS AS DIVISION • Grades 3–5 • CCSS 5.NF

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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?



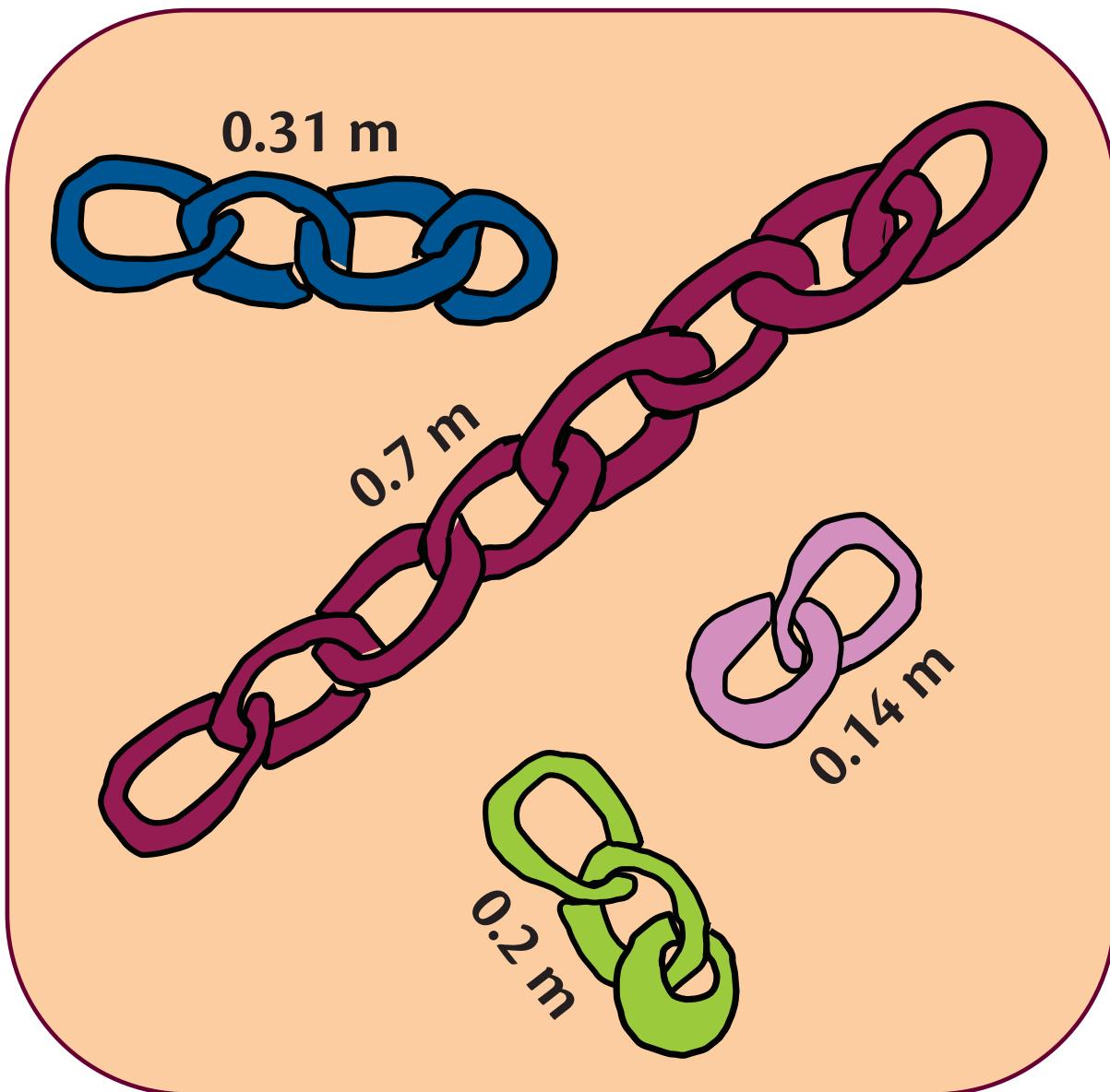
# What two decimals could you use to describe how full of pennies the grid is?



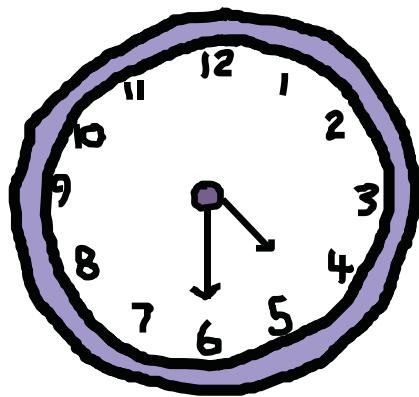
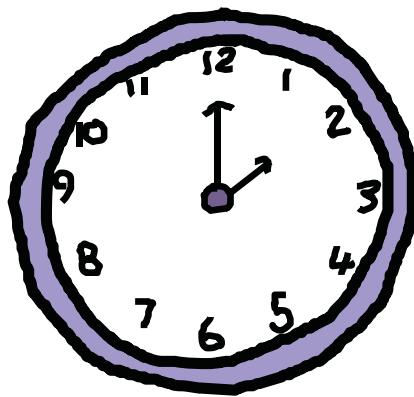
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## DECIMALS: EQUIVALENCE • Grades 3–5 • CCSS 4.NF

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



# Was this a long nap or a short nap?

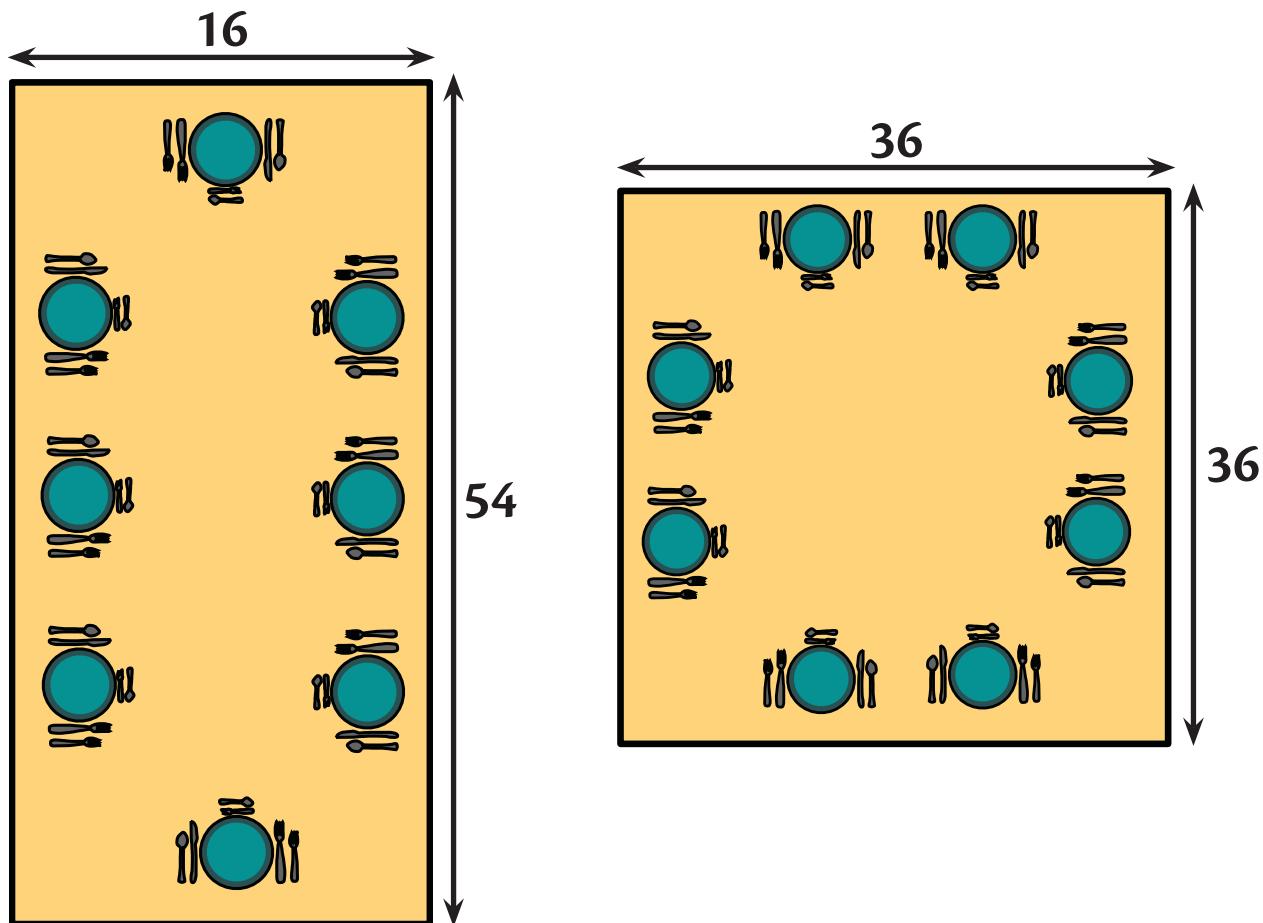


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## MEASUREMENT: TIME INTERVALS • Grades 3–5 • CCSS 3.MD

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# Which table has more space?



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## 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?

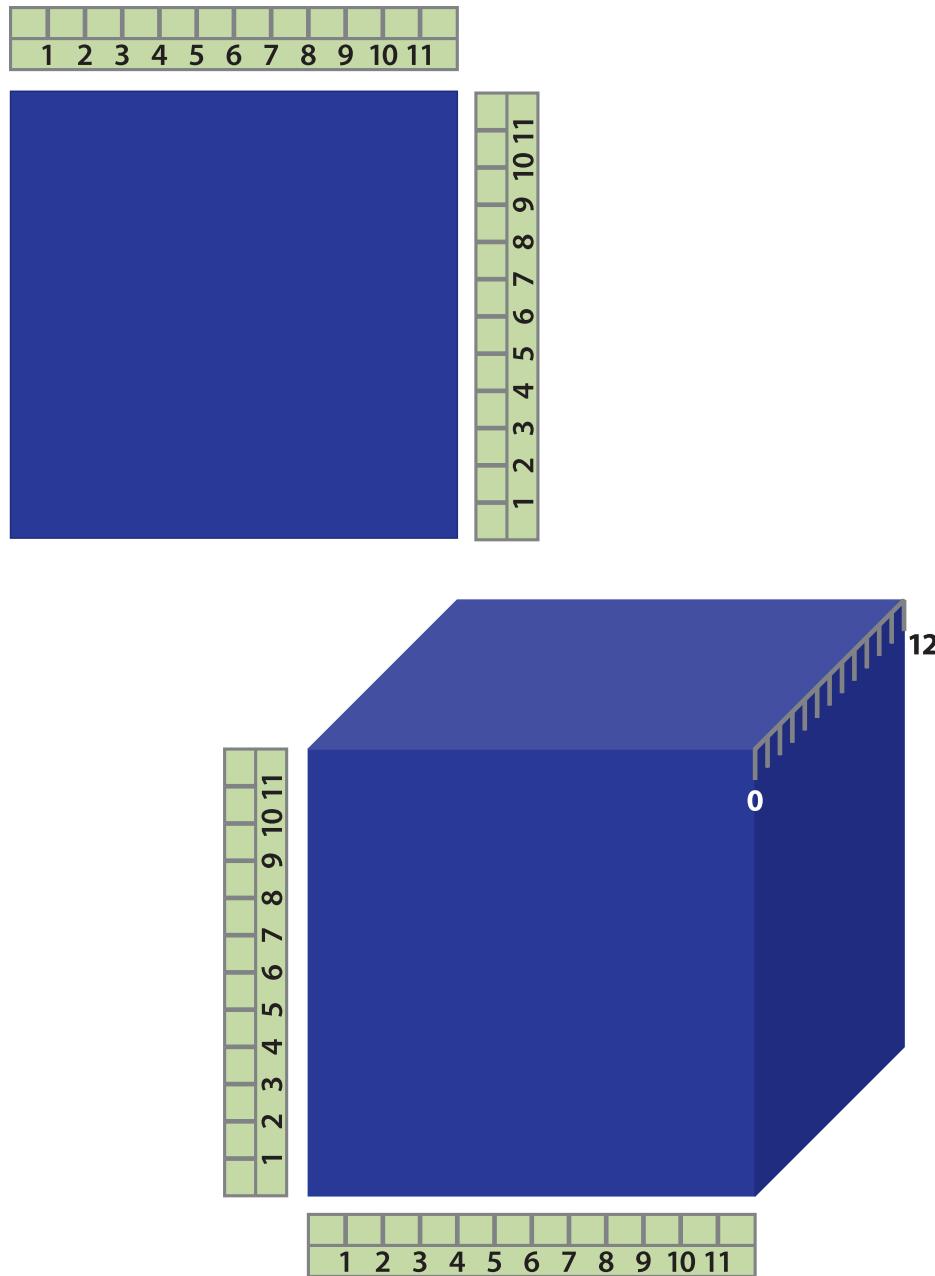


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PERIMETER VERSUS AREA • Grades 3–5 • CCSS 3.MD

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# How many cubic inches would 10 cubic feet be?

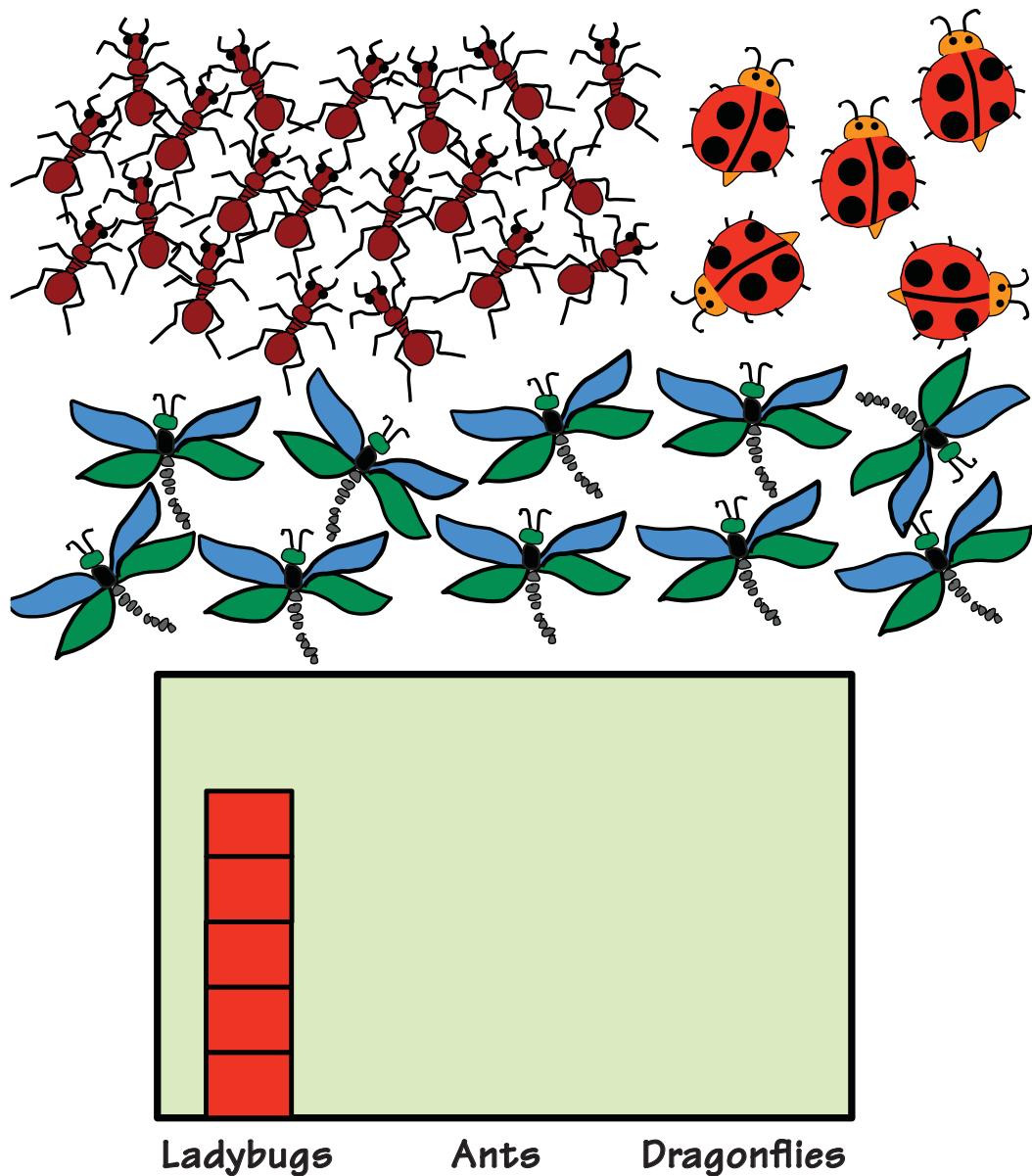


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## MEASUREMENT CONVERSIONS • Grades 3–5 • CCSS 4.MD, 5.MD

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

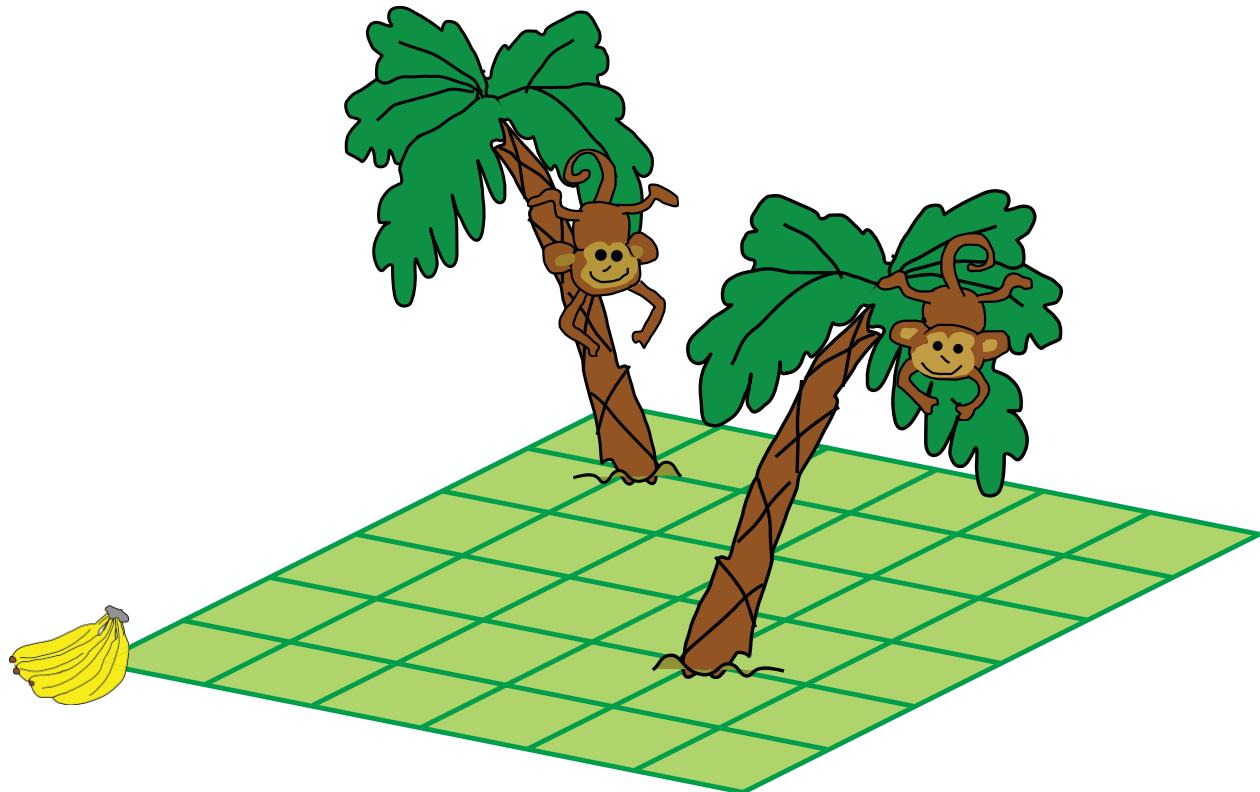


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GRAPHS WITH SCALES • Grades 3–5 • CCSS 3.MD

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# Which monkey's tree is closer to the bananas?



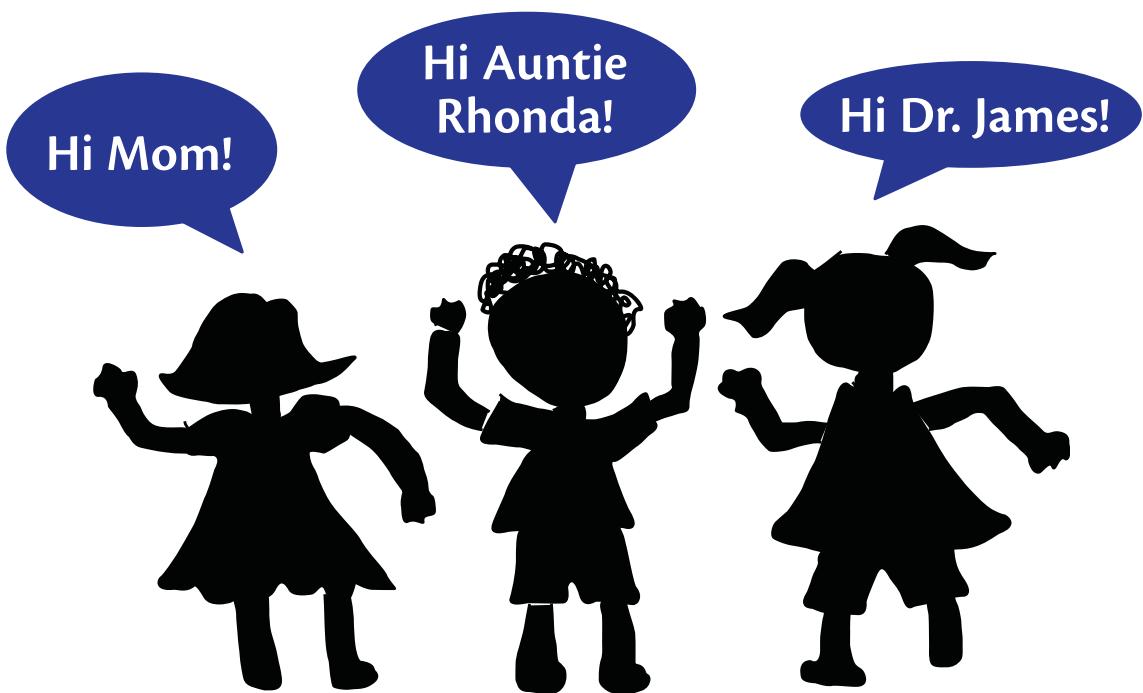
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## COORDINATE GRIDS • Grades 3–5 • CCSS 5.G

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# People can have many names.

What different names  
could you give this shape?

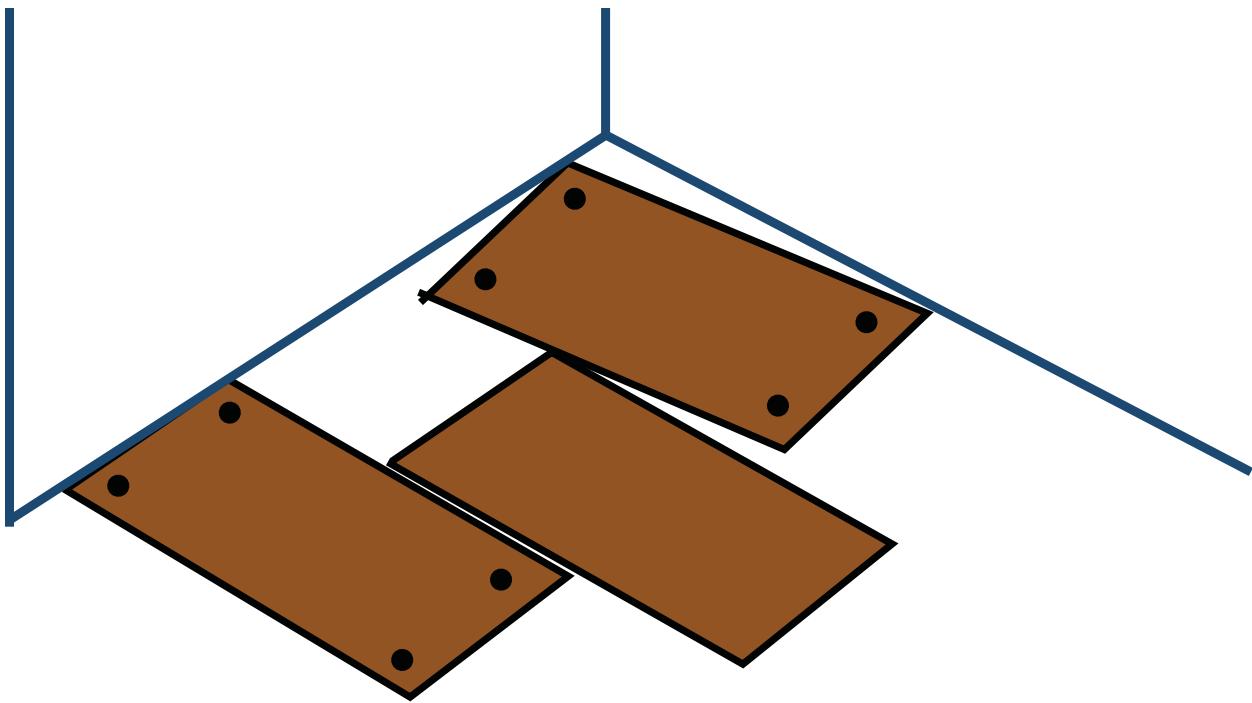


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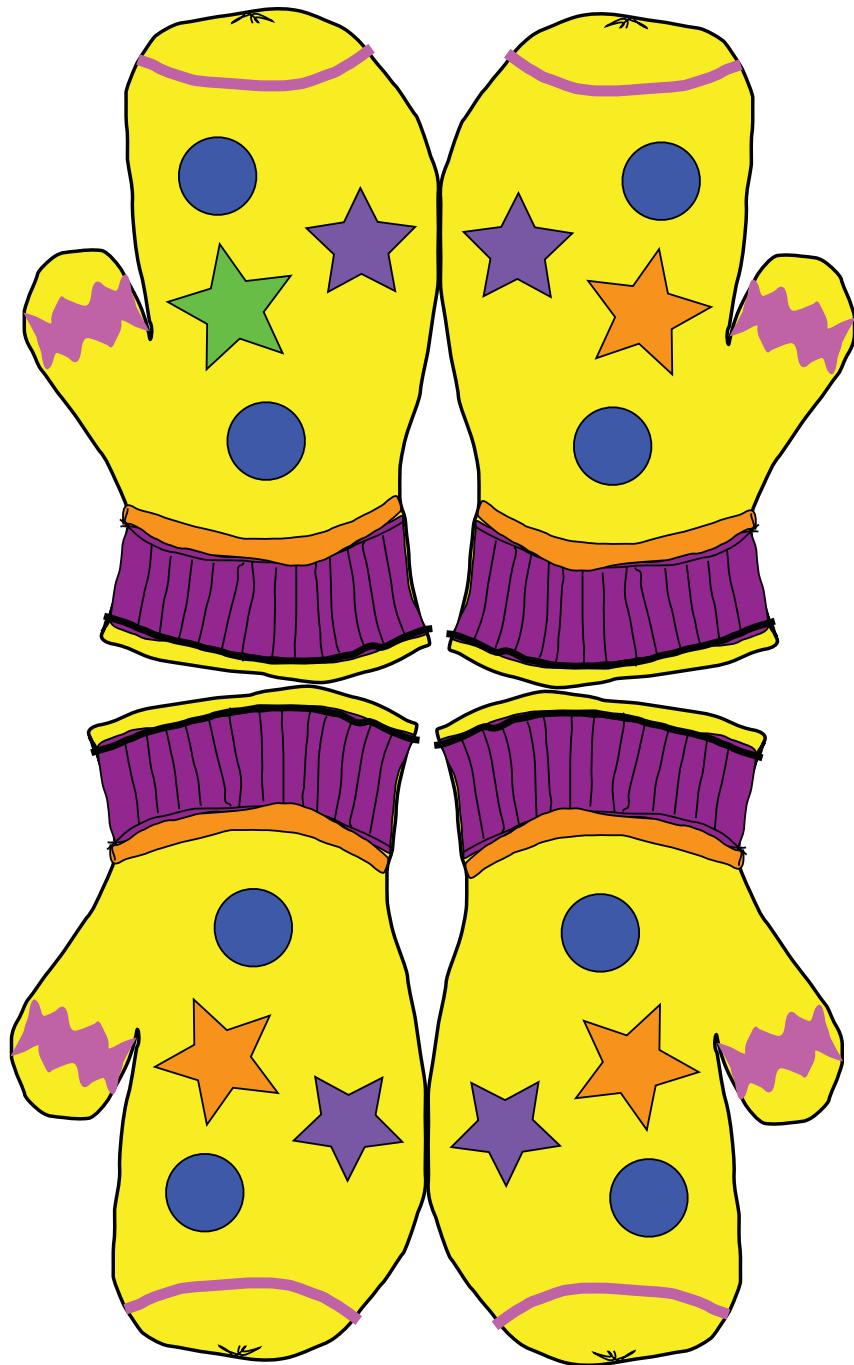
CLASSIFICATION OF SHAPES • Grades 3–5 • CCSS 5.G

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



# Does this picture show symmetry?

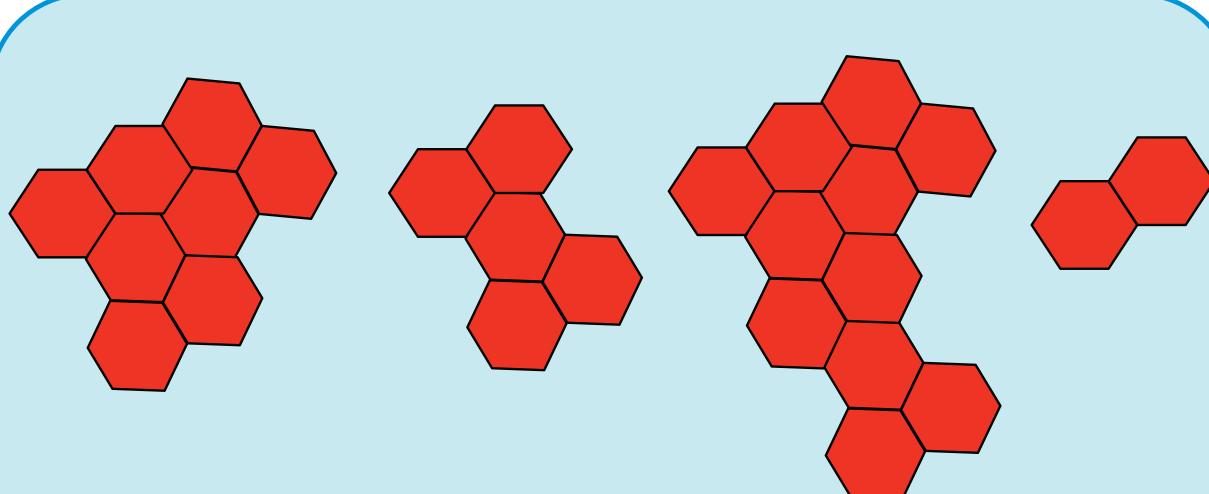
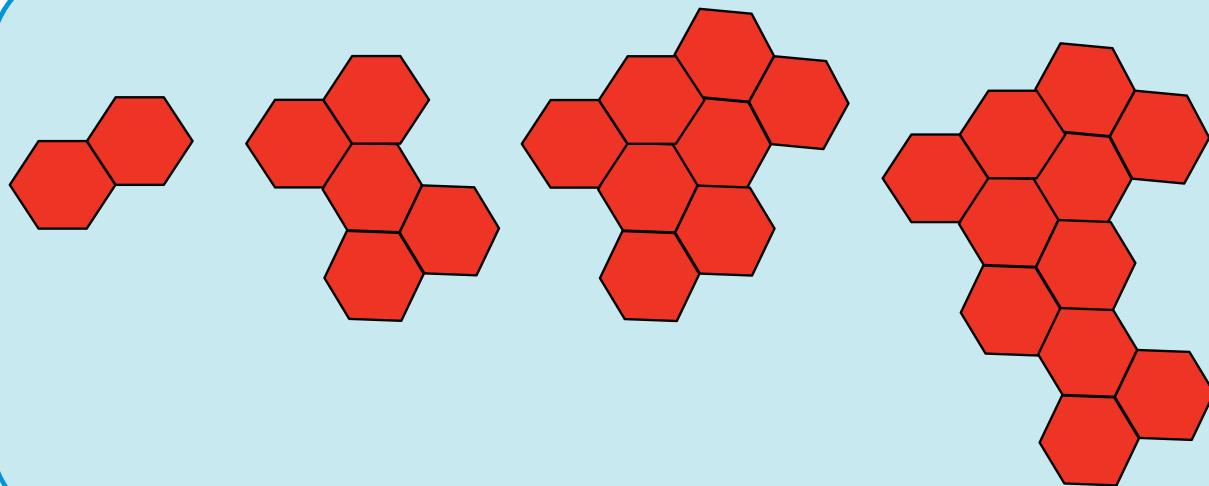


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**LINES OF SYMMETRY • Grades 3–5 • CCSS 4.G**

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# Which would you call a pattern? Why?



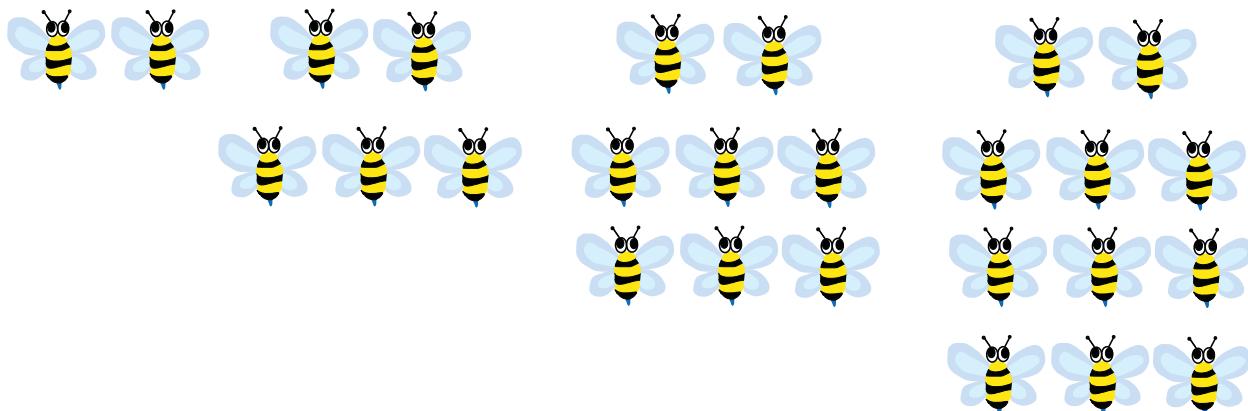
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PATTERNS VERSUS NON-PATTERNS • Grades 3–5 • CCSS 4.OA

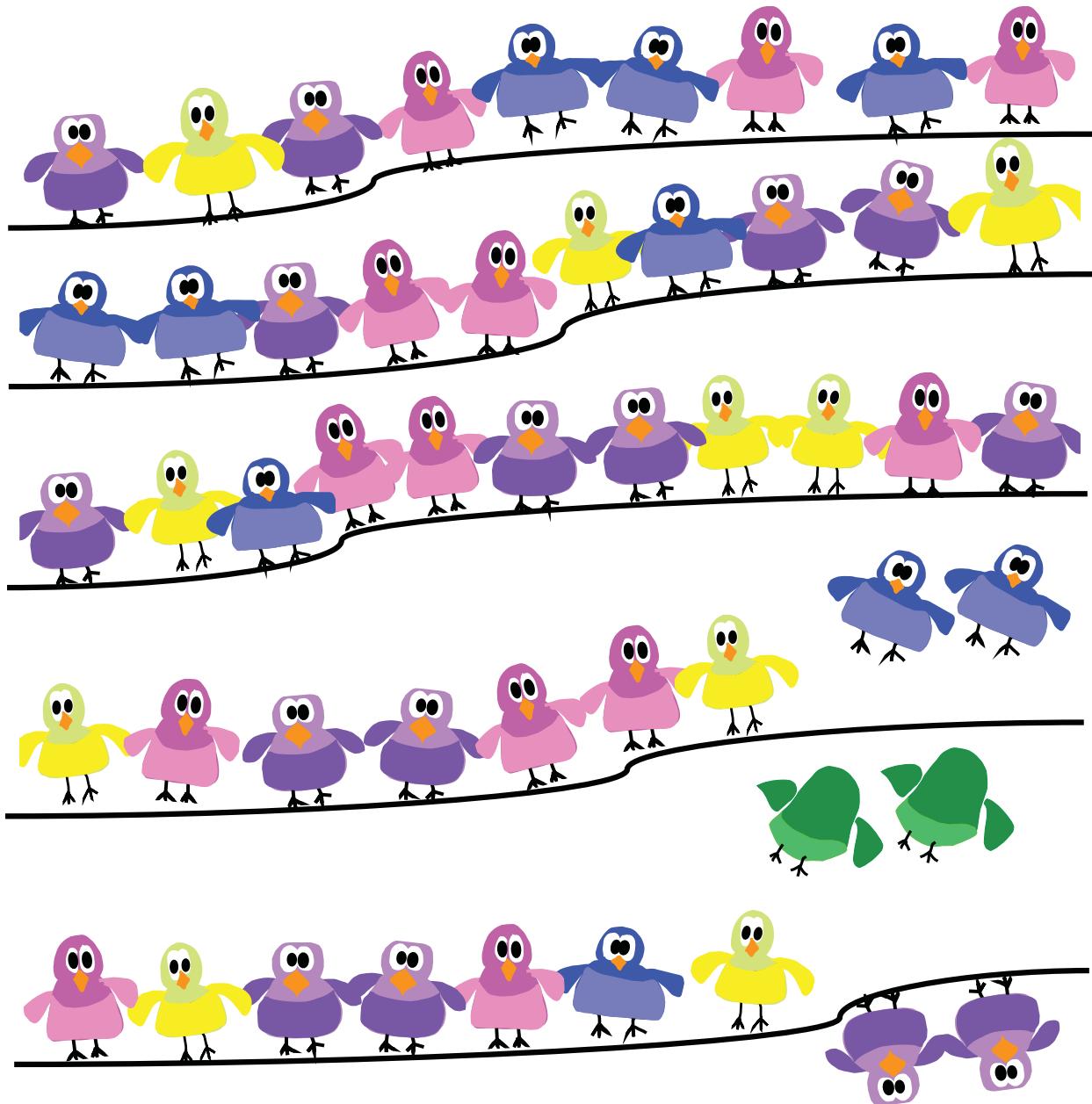
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At first, there were two bees.  
More and more groups of three bees  
join them.

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?



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

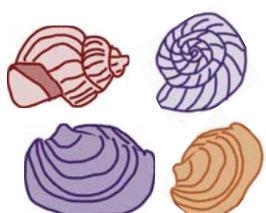
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# Whose collection will grow faster?

Day 1



Day 2



Day 3



Day 4



Jamie's Collection



Shemin's Collection

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

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