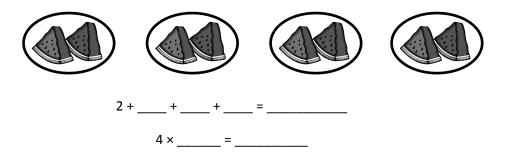
NYS	COMMON	CORE	MATHEMATICS	CURRICULUM

Name	Date	

1. The picture below shows 4 groups of 2 slices of watermelon. Write repeated addition and multiplication sentences to represent the picture.



2. Draw a picture to show 3 + 3 + 3 = 9. Then write a multiplication sentence to represent the picture.







NYS COMMON CORE MAT	THEMATICS CURRICULUM	Lesson 2 Exit Ticket	3•1
Name		Date	
$\stackrel{^{1}}{\Rightarrow} {\Rightarrow} {\to} $	a. There are 4 rows of stars. How n	nany stars are in each row?	
☆☆☆ ☆☆☆	b. Write a multiplication fact to des	cribe the total number of stars	

2. Judy collects seashells. She arranges them in 3 rows of 6. Draw Judy's array to show how many seashells she has all together. Then write a multiplication sentence to describe the array.



Relate multiplication to the array model. 6/26/13



Date \_\_\_\_\_

Draw an array that shows 5 rows of 3 squares. Then show a number bond where each part represents the amount in one row.

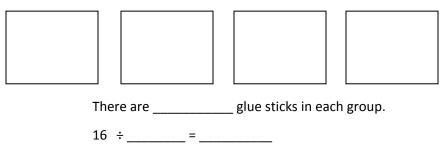


Lesson 1: Date: Interpret the meaning of factors-the size of the group or the number of groups. 6/26/13



Date \_\_\_\_\_

1. There are 16 glue sticks for the class. The teacher divides them into 4 equal groups. Draw the number of glue sticks in each group.



2. Draw a picture to show  $15 \div 3$ . Then complete the division sentence.

15 ÷ 3 = \_\_\_\_\_



Lesson 4:

Understand the meaning of the unknown as the size of the group in division. 6/26/13





Nai	me	Date
1.	Divide 12 triangles into groups of 6.	$ \mathbb{A}_{\mathbb{A}}^{\mathbb{A}} \mathbb{A}_{\mathbb{A}}^{\mathbb{A}} \mathbb{A}_{\mathbb{A}}^{\mathbb{A}} \mathbb{A} $

12 ÷ 6 = \_\_\_\_\_

2. Spencer buys 20 strawberries to make smoothies. Each smoothie needs 5 strawberries. Use a count-by to find the number of smoothies Spencer can make. Make a drawing to match your counting.



Lesson 5: Date: Understand the meaning of the unknown as the number of groups in division. 6/26/13





This work is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.</u>

NYS COMMON CORE MATHEMATICS CURRICULUM	Lesson 6 Exit licket	3•1
Name	Date	
1. Cesar arranges 12 notecards into rows of 6 for his presentation.	Draw an array to represent the pr	oblem.
	12 ÷ 6 = _	
		v C - 17
		× 6 = 12

What do the unknown factor and quotient represent? \_\_\_\_\_\_



Interpret the unknown in division using the array model. 6/26/13





Lesson 7 Exit Ticket 3•1

Name		Date	
	2 × 5 = 5 × 2		

Do you agree or disagree with the statement in the box? Draw arrays and use skip-counting to explain your thinking.



Lesson 7: Date:

Demonstrate the commutativity of multiplication and practice related facts by skip-counting objects in array models. 6/26/13



1.C.11

Name

Date \_\_\_\_\_

 Mary Beth organizes stickers on a page in her sticker book. She arranges them in 3 rows and 4 columns. Draw an array to show Mary Beth's stickers.

- a. Use your array to write a multiplication sentence to find Mary Beth's total number of stickers.
- b. Label your array to show how you skip-count to solve your multiplication sentence.
- c. Use what you know about the commutative property to write a different multiplication sentence for your array.



Lesson 8: Date: Demonstrate the commutativity of multiplication and practice related facts by skip-counting objects in array models. 6/26/13





Name	Date
$\bigcirc \bigcirc$	1. Mrs. Stern roasts cloves of garlic. She places 10 rows of two cloves on a baking sheet.
$\bigcirc \bigcirc$	Write a multiplication sentence to describe the number of cloves Mrs. Stern bakes.
$\bigcirc \bigcirc$	×=
$\bigcirc \bigcirc$	
$\bigcirc \bigcirc$	<ol><li>When the garlic is roasted, Mrs. Stern uses some for a recipe, leaving 2 rows of two garlic cloves on the pan.</li></ol>
$\bigcirc \bigcirc$	a. Complete the number sentence below to show how many garlic cloves she uses.
$\bigcirc \bigcirc$	twos – twos =twos
$\bigcirc \bigcirc$	
$\bigcirc \bigcirc$	b. 20 – = 16
$\bigcirc \bigcirc$	c. Write a multiplication sentence to describe the number of garlic cloves she uses.

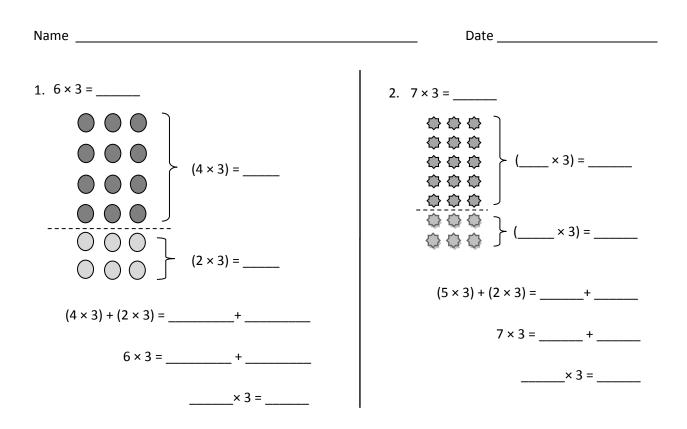
× 2 =



6/26/13

Find related multiplication facts by adding and subtracting equal groups in array models.







Lesson 10: Date:

Model the distributive property with arrays to decompose units as a strategy to multiply. 6/26/13



This work is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.</u>

Date \_\_\_\_\_

Ms. McCarty has 18 stickers. She puts 2 stickers on each homework paper. How many homework papers does she have? Model the problem with both an array and a labeled tape diagram.



Lesson 11: Date:

Model division as the unknown factor in multiplication using arrays and tape diagrams. 6/26/13





Date \_\_\_\_\_

There are 14 mints in 1 box. Cecilia eats 2 mints each day. How many days does it take Cecilia to eat 1 box of mints? Draw and label a tape diagram to solve.

It takes Cecilia \_\_\_\_\_ days to eat 1 box of mints.



Lesson 12: Date:

Interpret the quotient as the number of groups or the number of objects in each group using units of 2. 6/26/13





Date \_\_\_\_\_

1. Andrea has 21 apple slices. She uses 3 apple slices to decorate 1 pie. How many pies does Andrea make? Draw and label a tape diagram to solve.

2. There are 24 soccer players on the field. They form 3 equal teams. How many players are on each team?



Lesson 13: Date:

Interpret the quotient as the number of groups or the number of objects in each group using units of 3. 6/26/13





Date \_\_\_\_\_

Arthur has 4 boxes of chocolates. Each box has 6 chocolates inside. How many chocolates does Arthur have altogether? Draw and label a tape diagram to solve.



Lesson 14: Date: Skip-Count objects in models to build fluency with multiplication facts using units of 4. 6/26/13





Date \_\_\_\_\_

Draw and label 2 tape diagrams to show that  $4 \times 3 = 3 \times 4$ . Use your diagrams to explain how you know.



Lesson 15: Date:

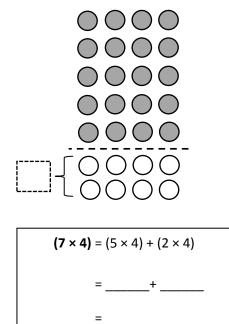
Relate arrays to tape diagrams to model the commutative property of multiplication. 6/26/13





Date \_\_\_\_\_

Destiny says, "I can use  $5 \times 4$  to find the answer to  $7 \times 4$ ." Use the array below to explain Destiny's strategy using words and numbers.





Lesson 16:

6/26/13

Use the distributive property as a strategy find related multiplication facts.





Date \_\_\_\_\_

1. Mr. Thomas organizes 16 binders into stacks of 4. How many stacks does he make? Draw and label a number bond to solve.

2. The chef uses 28 avocados to make 4 batches of guacamole. How many avocados are in 2 batches of guacamole? Draw and label a tape diagram to solve.



Lesson 17: Date:

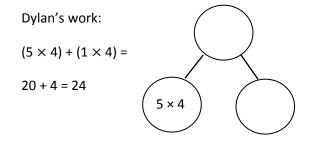
Model the relationship between multiplication and division. 6/26/13





Date \_\_\_\_\_

Dylan used the distributive property to solve a multiplication problem. Look at his work below, write the multiplication problem Dylan solved and complete the number bond.







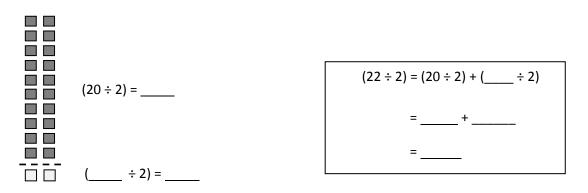
Apply the distributive property to decompose units. 6/26/13





Date \_\_\_\_\_

Complete the equations below to solve  $22 \div 2 =$ \_\_\_\_\_.





Lesson 19: Date:

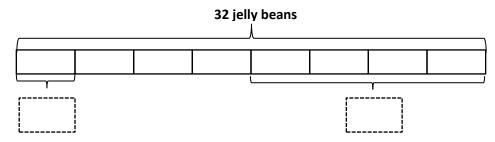
Apply the distributive property to decompose units. 6/26/13





Name \_\_\_\_\_ Date \_\_\_\_\_

1. Thirty-two jellybeans are shared by 8 students.



- a. How many jellybeans will each student get?
- b. How many jellybeans will 4 students get?

2. The teacher has 30 apple slices and 20 pear slices. Five children equally share all of the fruit slices. How many fruit slices does each child get?



Lesson 20: Date: Solve two-step word problems involving multiplication and division and assess the reasonableness of answers. 6/26/13





Name

Date \_\_\_\_\_

Ms. Egeregor buys 27 books for her classroom library. She buys an equal amount of fiction, nonfiction, and poetry books. She shelves all of the poetry books first. Draw and label a tape diagram to show how many books Ms. Egeregor has left to shelve.



Lesson 21: Date: Solve two-step word problems involving all four operations and assess the reasonableness of answers. 6/26/13

