First Grade Common Core State Standard -Aligned

First Grade Math Beginning & End of Year Assessments

Nordonia Hills Math SLO

Operations and Algebraic Thinking 1.OA

A. Represent and solve problems involving addition and subtraction.

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (See Glossary)

1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

B. Understand and apply properties of operations and the relationship between addition and subtraction

1.OA.3 Apply properties of operations as strategies to add and subtract. (Students need not use formal terms for these properties.) Examples:

If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.)

To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)

1.OA.4 Understand subtraction as an unknown-addend problem.

For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.

C. Add and subtract within 20.

1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

D. Work with addition and subtraction equations.

1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.

1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example:

8 + ? = 11, 5 = ?– 3, 6 + 6 = ?

Number and Operations in Base Ten 1.NBT

E. Extend the counting sequence.

1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

F. Understand place value.

1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

a. 10 can be thought of as a bundle of ten ones — called a "ten."
b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

G. Use place value understanding and properties of operations to add and subtract.

1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 1090 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Measurement and Data 1.MD

H. Measure lengths indirectly and by iterating length units.

1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.

1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.

I. Tell and write time.
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.

J. Represent and interpret data.
1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Geometry 1.G

K. Reason with shapes and their attributes.
1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, halfcircles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (Students do not need to learn formal names such as "right rectangular prism.")
1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Beginning of Year
Pre -Assessment

Nordonia Hills City Schools

Math SLO / 100 points

Student:

Date:

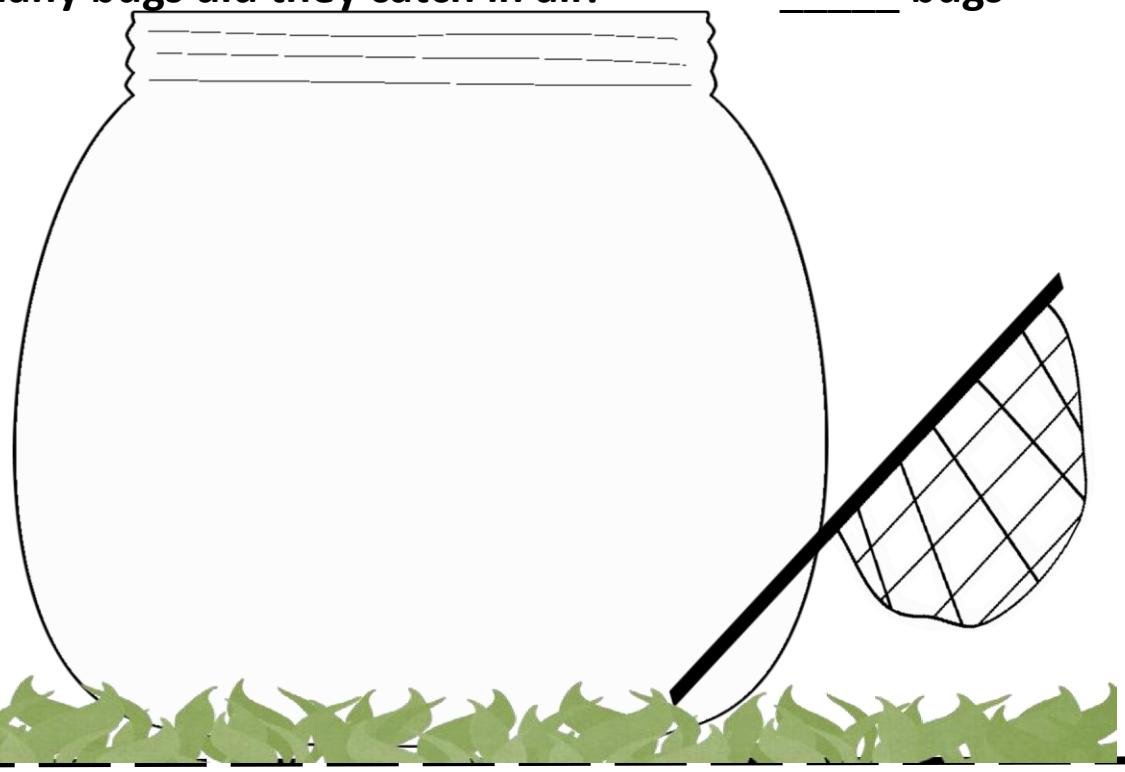
Teacher:

1.OA. 1

Jan caught 2 bugs. Tim caught 4 bugs.

How many bugs did they catch in all? _____ bugs

Show or Tell:

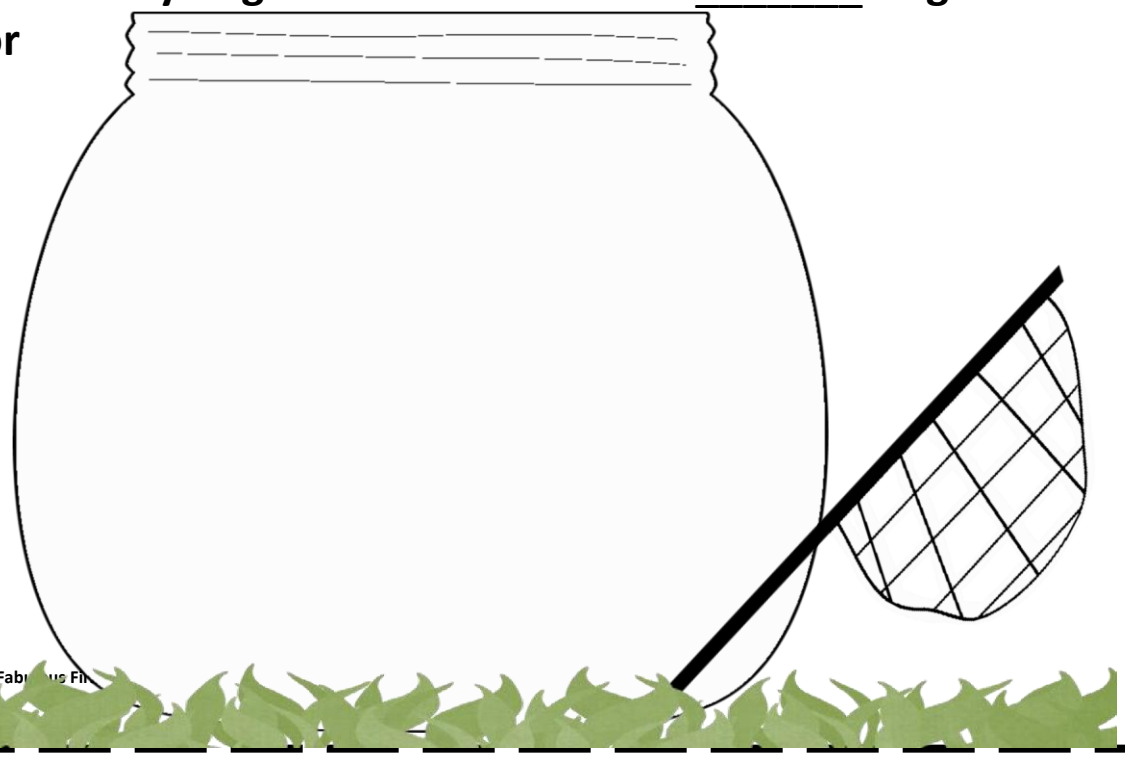


1.OA. 2

Bob caught 2 ants, 4 butterflies, and 1 bee.

How many bugs did he catch? _____ bugs

Show or Tell

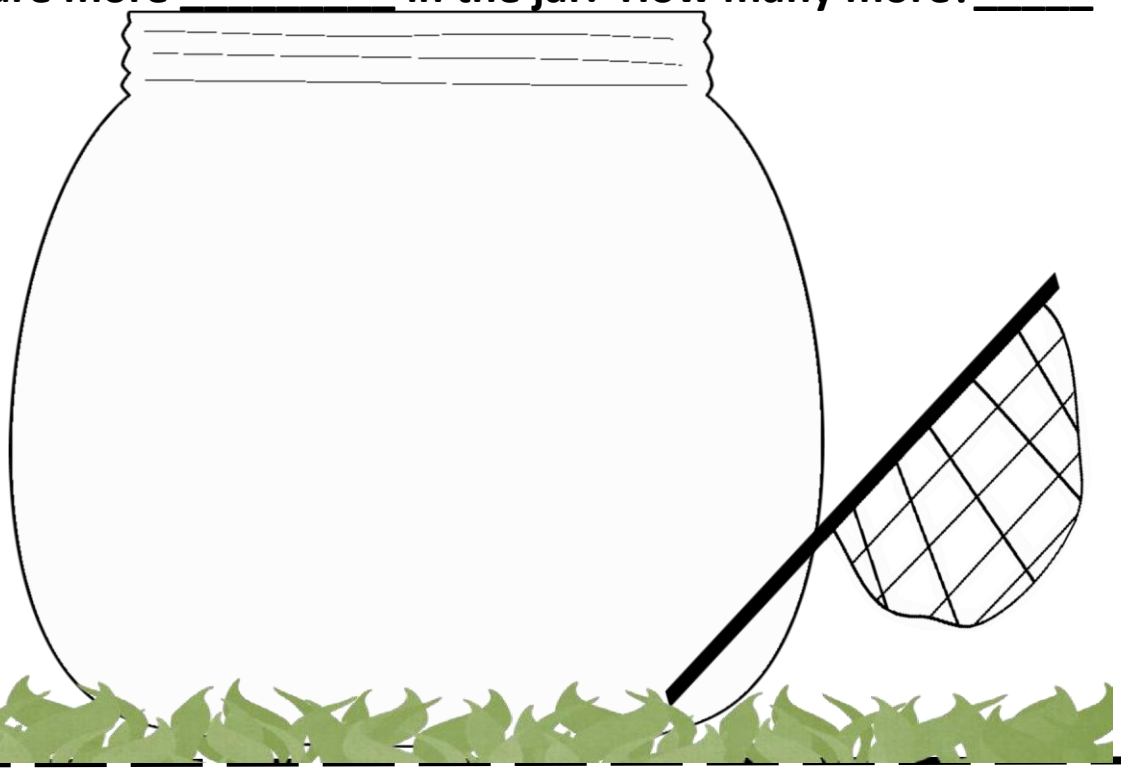


1.OA. 1

There are 8 fireflies and 5 bees in the jar.

There are more _____ in the jar. How many more?_____

Show or Tell:



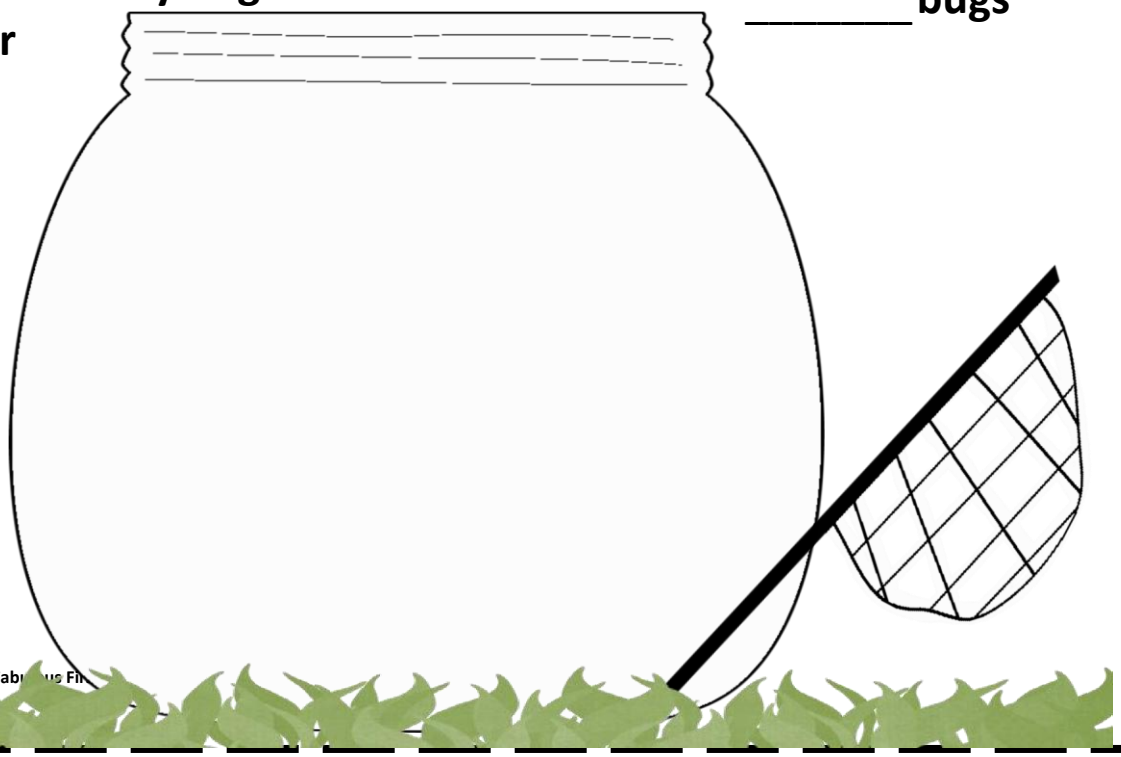
1.OA. 2

There are 10 bugs in a jar. 3 bugs crawled out.

How many bugs are left?

_____ bugs

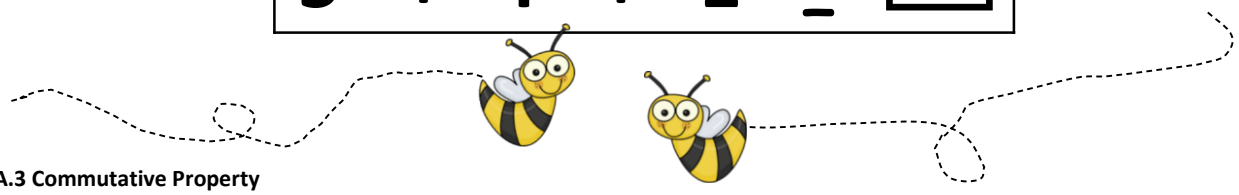
Show or Tell



1.OA.3 Associative Property

Add the numbers.

6	+	4	+	3	=	☐
7	+	3	+	6	=	☐
5	+	4	+	1	=	☐



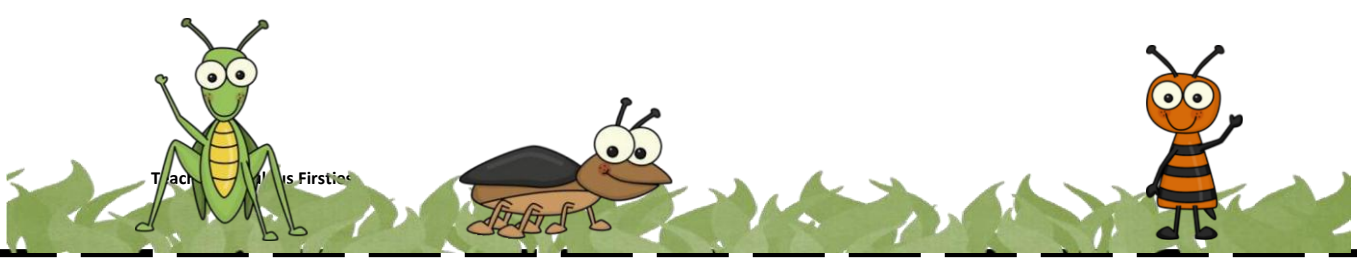
1.OA.3 Commutative Property

If you know:		Then, you know:
7 + 3 = 10	➡	+ =
6 + 5 = 11	➡	+ =

1.OA. 4

Use a related addition fact to solve a subtraction fact

9 − 4 = ☐	➡	+ = 9
10 − 3 = ☐	➡	+ = 10



1.OA.5

Count by 1's.

14, _____, _____, _____, _____, _____, _____

37, _____, _____, _____, _____, _____, _____

Count by 2's.

24, _____, _____, _____, _____, _____, _____

74, _____, _____, _____, _____, _____, _____

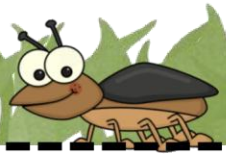
1.OA.6

Write the equation shown by the pictures.

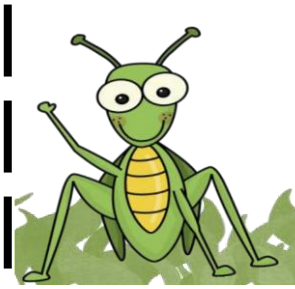
_____ + _____ = _____

_____

_____ - _____ = _____

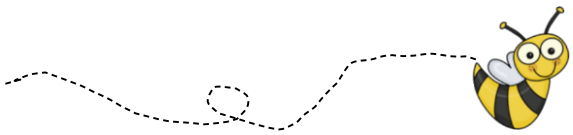


1.OA. 7



Is the equation true or false?
Circle your answer.

8 - 2 = 6	➡	true or false ?
4 = 6 - 3	➡	true or false ?
9 + 2 = 10	➡	true or false ?
5 - 3 = 2	➡	true or false ?



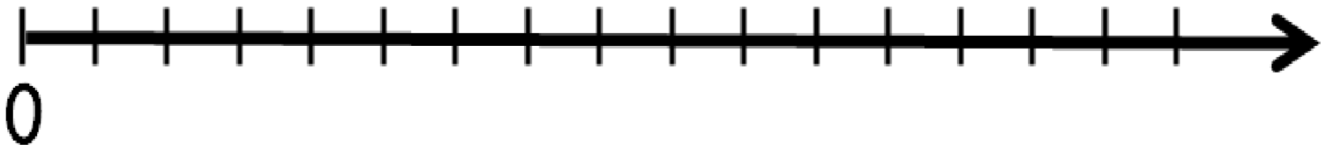
1.OA. 8

Fill in the missing numbers.

5	-	☐	=	1
☐	+	3	=	8
9	-	5	=	☐

1.OA. 6

Find where the numbers 7 and 12 are on the number line. Write the numbers where they belong .



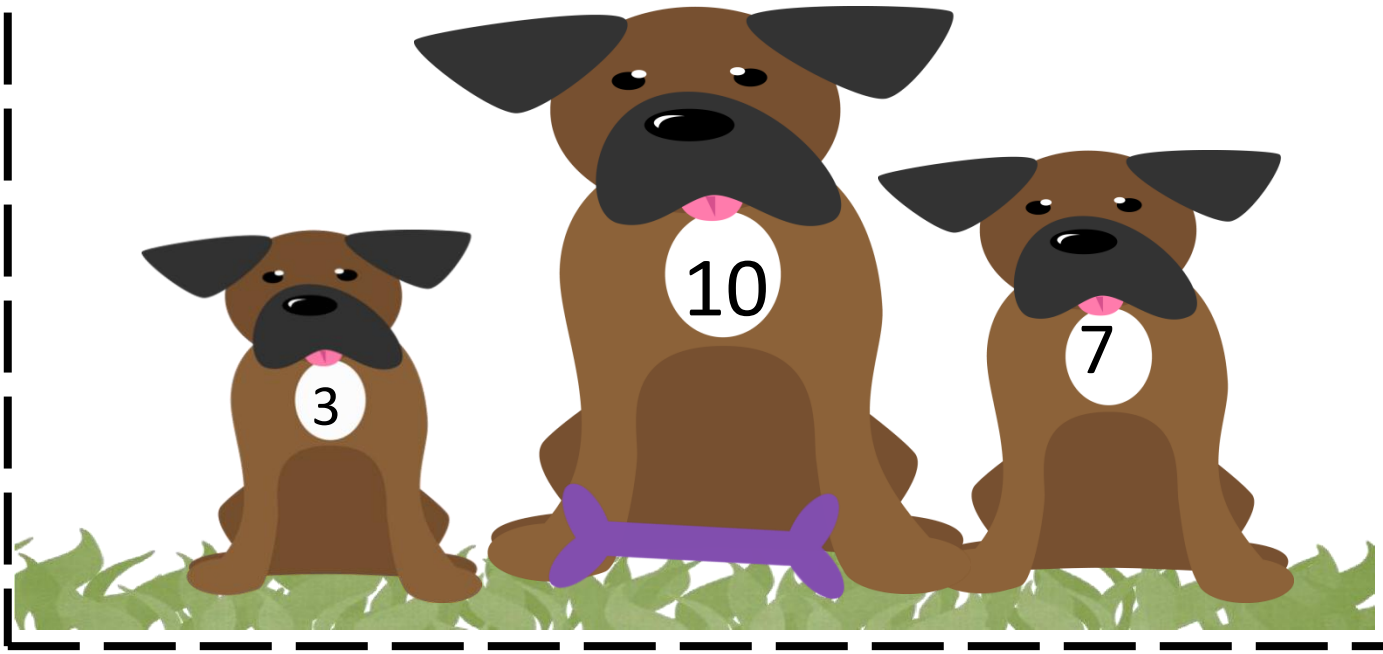
Write the "Fact Family" using 3, 7, and 10 :

_____ + _____ = _____

_____ + _____ = _____

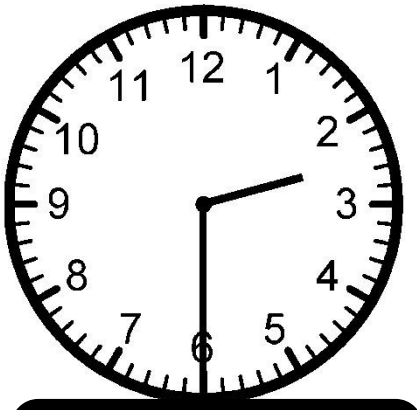
_____ - _____ = _____

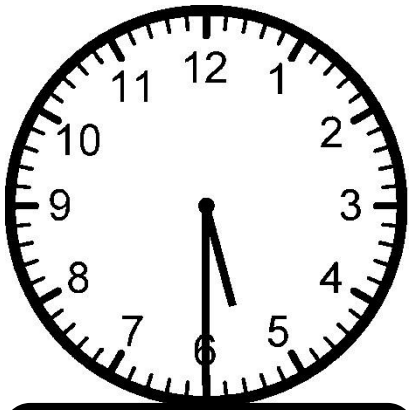
_____ - _____ = _____

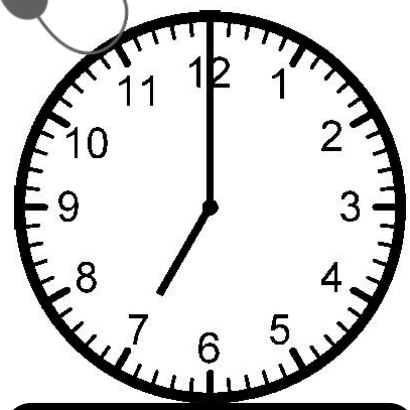


1.MD.3

Write the time on the digital clock.







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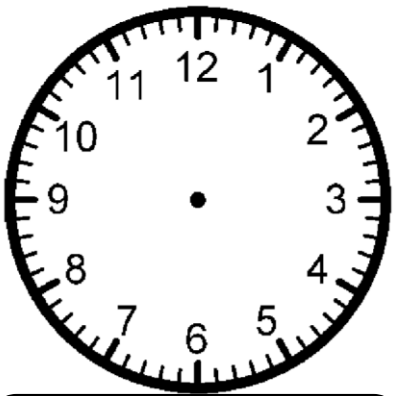
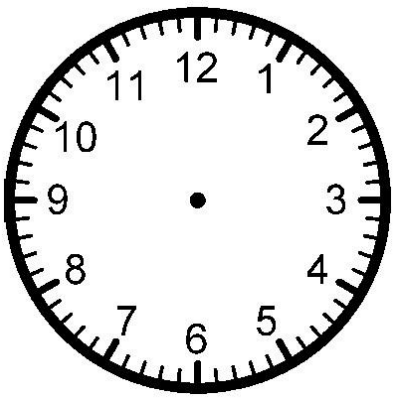
:

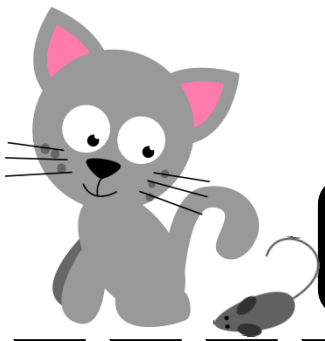
:

:

Draw hands on the analog clock.







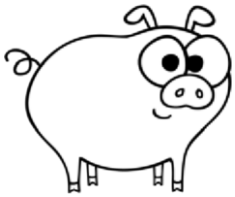
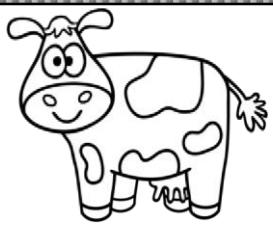
12:30

5:00

1.MD.4

Use the graph below to answer the questions .

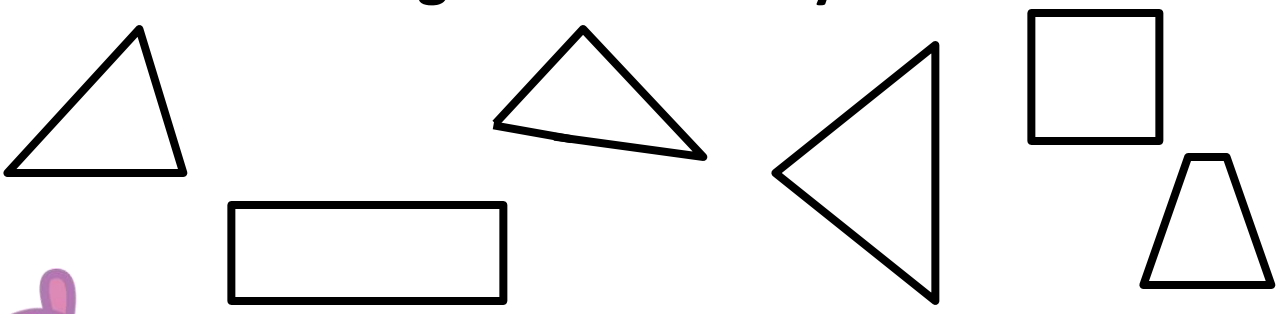
Our Favorite Farm Animals

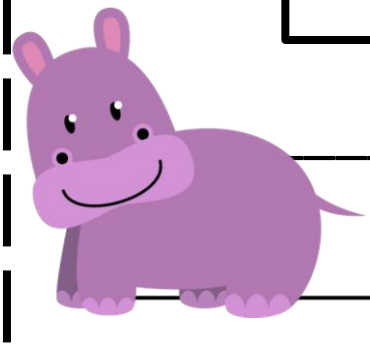
5			
4			
3			
2			
1			
	 chicken	 pig	 cow

- Which animal has the most votes? _____
- Which animal has the least votes ?_____
- How many votes does the chicken have ?_____
- How many more votes does the cow have than the pig? _____
- How many people voted in all? _____people
- How many votes do the chicken and cow have in all? _____

1.G. 1

Circle the triangles. Tell how you know.





_____

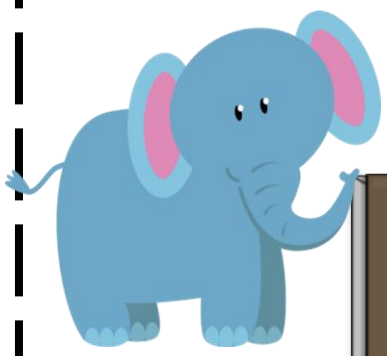
_____

..

_____

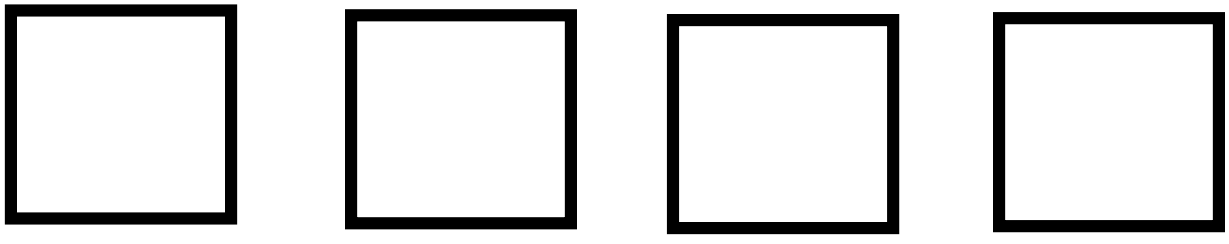
1.G.3

Draw a line to show how you and a friend can <u>equally</u> share this candy bar.



1.G.2

Cut out the squares below and glue them together to create a larger square or rectangle.



1.NBT.1

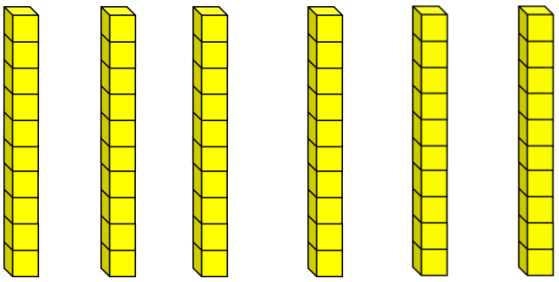
Draw Base Ten blocks to represent each number .

38

52

.1.NBT.2a

Count the Base 10 blocks and write the number that they represent.



= _____

Solve the problems

1.NBT.2b

10 + 3 = _____

10 + 7 = _____

10 + 4 = _____

90 = __ tens & __ ones

1

20 = __ tens & __ ones

1.NBT3

Fill in the correct symbol.

> = <

31 ☐ 38

12 ☐ 21

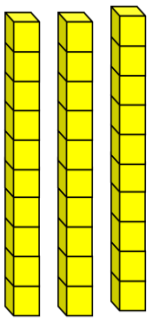
49 ☐ 94

90 ☐ 90

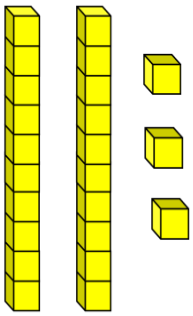
Solve the addition problem.

1.NBT . 4

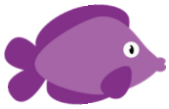
30+23= ____



+



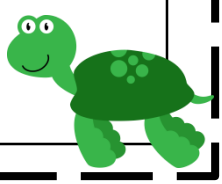
1.NBT .4



Solve the problem.

You may draw base ten blocks to help you.

24 +13	
38 -10	
56 -23	
32 + 6	



1.NBT.5

Fill in the number grid with 10 more, 10 less, 1 more, and 1 less.

	22	

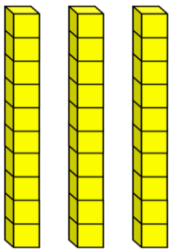
	45	

1.NBT.6

Solve the subtraction problem.
Draw an X on the Base 10 blocks you subtract.

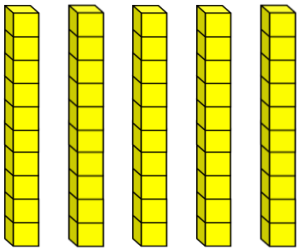
30

-10



50

-30



End of Year
Post -Assessment

Nordonia Hills City Schools
Math SLO

Name:

Student:

Teacher:

1.OA. 1

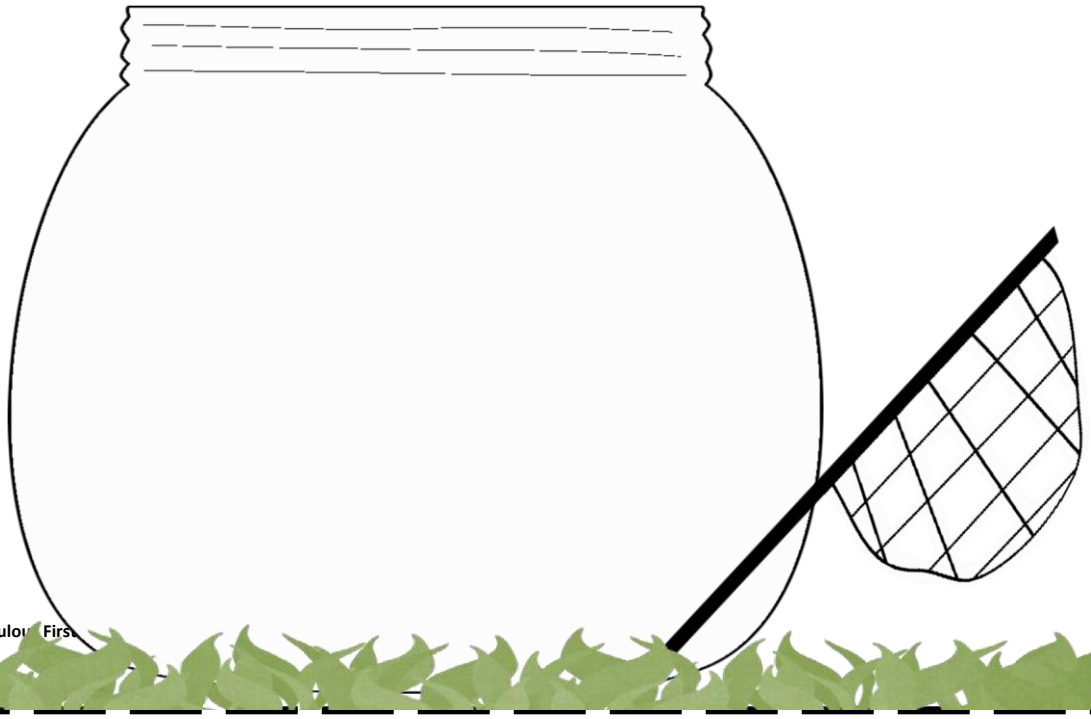
Pam caught 6 bugs. Sam caught 4 bugs.
How many bugs did they catch in all? _____ bugs

Show or tell:

1.OA. 2

Dan caught 5 ants, 2 butterflies , and 2 bees.
How many bugs did he catch? _____ bugs

Show or tell:



1.OA. 1

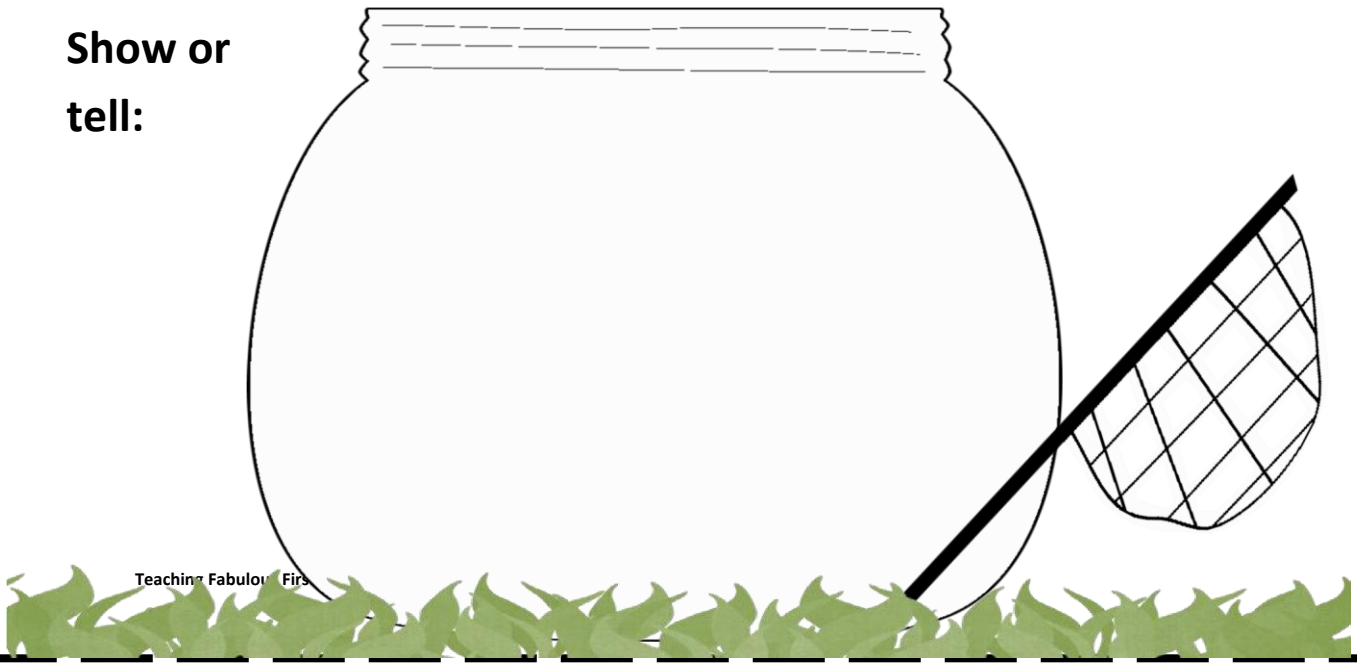
There are 18 bugs in a jar. 9 bugs crawled away.
How many bugs are left in the jar? _____ bugs

Show or tell:

1.OA. 2

Tim caught 16 fireflies and 9 bees. He has <u>fewer</u> _____. How many <u>more</u> fireflies than bees does he have in the jar?

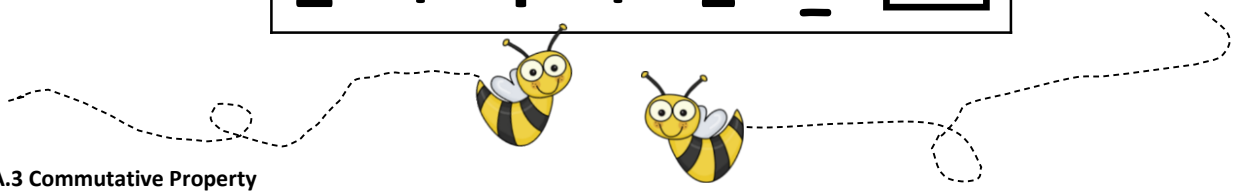
Show or tell:



1.OA.3 Associative Property

Add the numbers.

2 + 5 + 2 =	☐
8 + 2 + 3 =	☐
2 + 4 + 1 =	☐



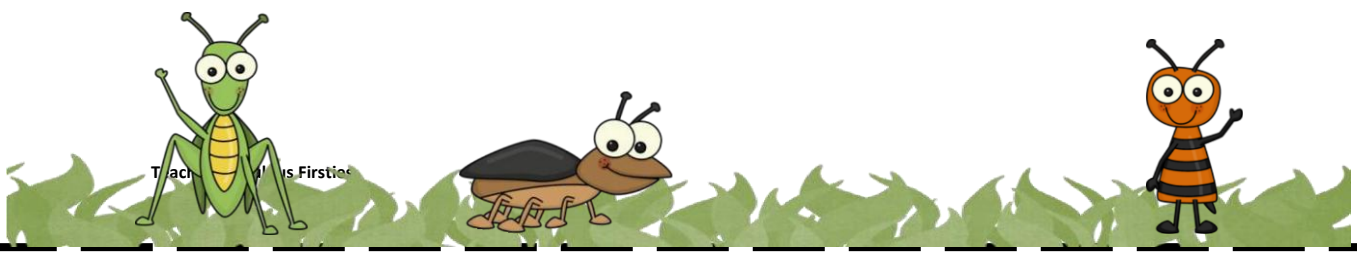
1.OA.3 Commutative Property

If you know:	Then, you know:
8 + 1 = 9	+ =
2 + 3 = 5	+ =

1.OA. 4

Use a related addition fact to solve a subtraction fact

10 − 8 = ☐	+ = 10
8 − 3 = ☐	+ = 8



1.OA.5

Count by 2's

16, , , , , , , ,

25, , , , , , , ,

Count by 10's

36, , , , , , , ,

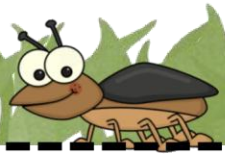
52, , , , , , , ,

1.OA.6

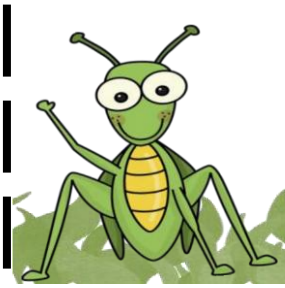
Write the equation shown by the pictures.

_____ + _____ = _____

_____ - _____ = _____

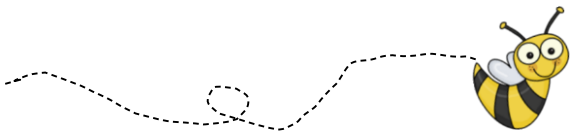


1.OA. 7



Is the equation true or false?
Circle your answer.

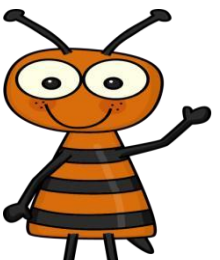
9 - 7 = 2	➡	true or false ?
6 = 9 - 3	➡	true or false ?
7 + 8 = 16	➡	true or false ?
8 - 5 = 3	➡	true or false ?



1.OA. 8

Fill in the missing numbers.

8	-	☐	=	4
☐	+	2	=	12
11	-	5	=	☐



1.OA. 6

Find where the numbers 35 and 44 are on the number line.
Write the numbers where they belong or circle where they go.

30

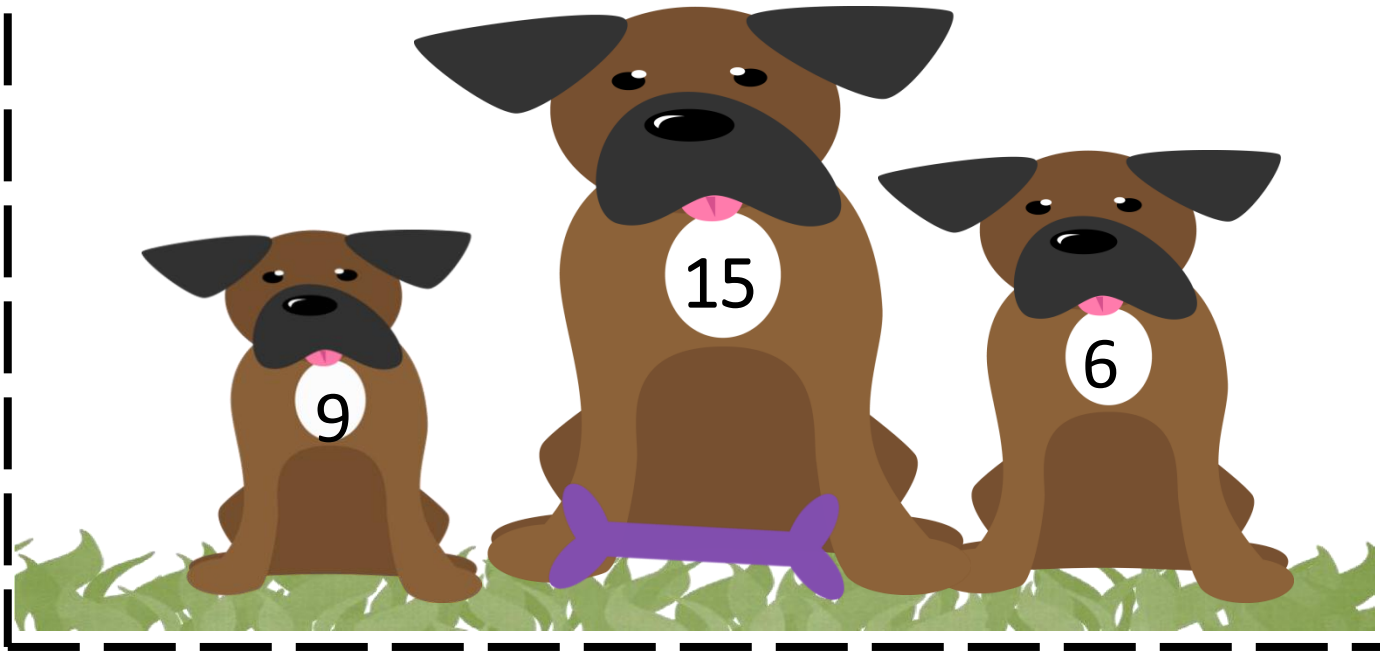
Write the "Fact Family" using **6, 9, and 15**

_____ + _____ = _____

_____ + _____ = _____

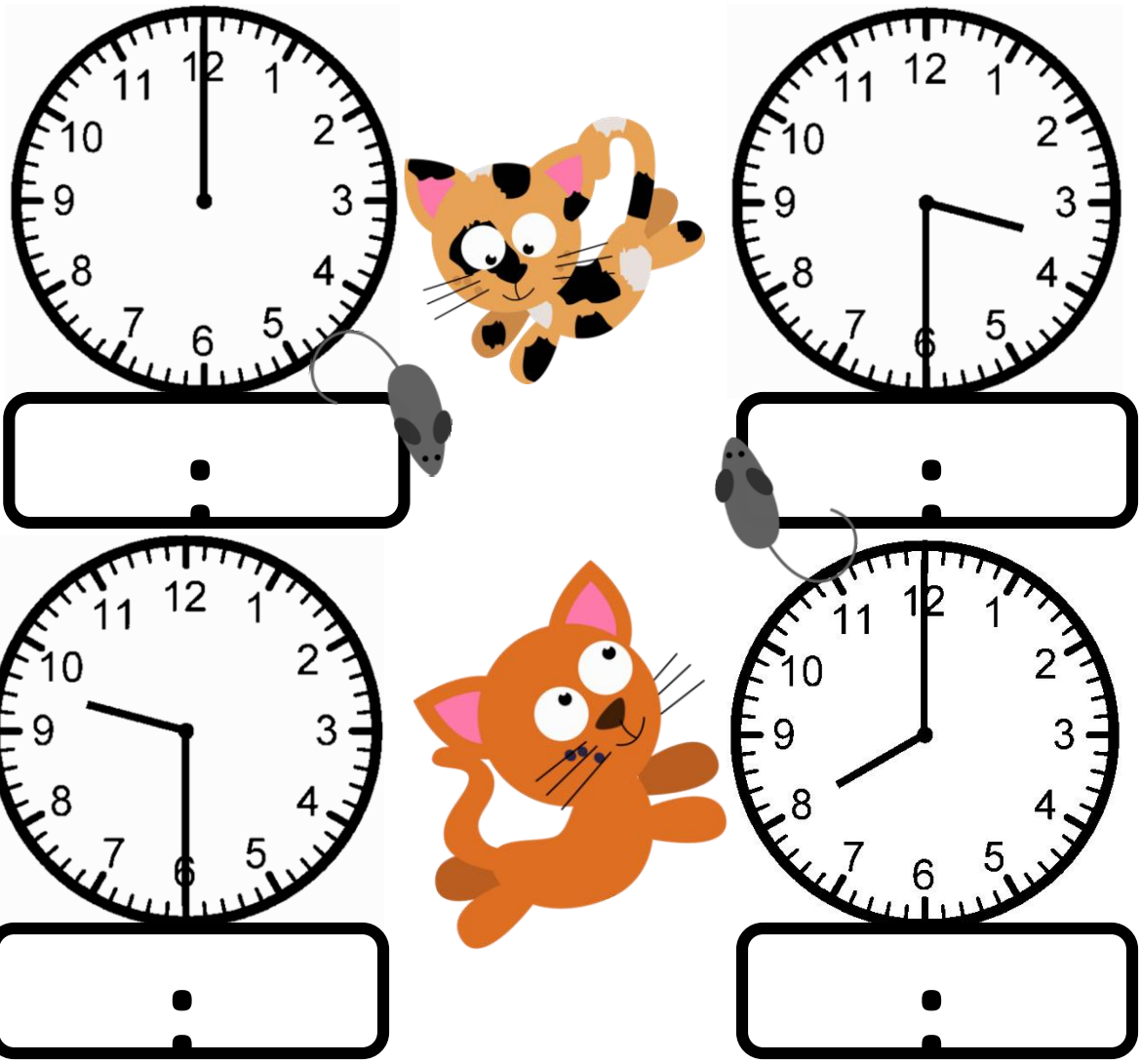
_____ - _____ = _____

_____ - _____ = _____

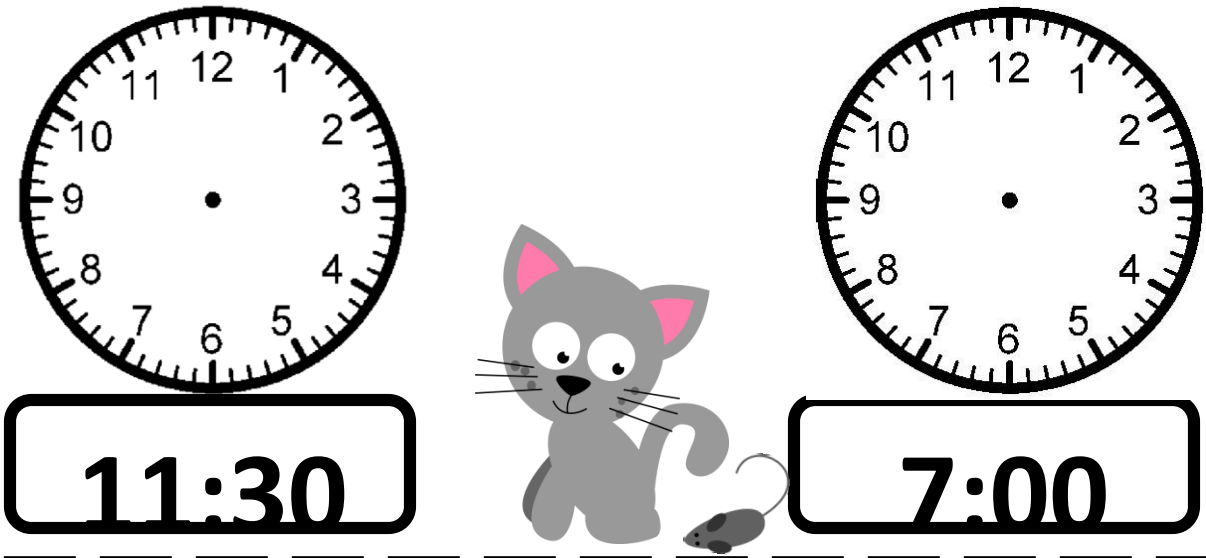


1.MD.3

Write the time on the digital clock.



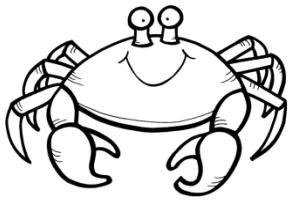
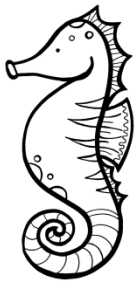
Draw hands on the analog clock.



1.MD.4

Use the graph below to answer the questions .

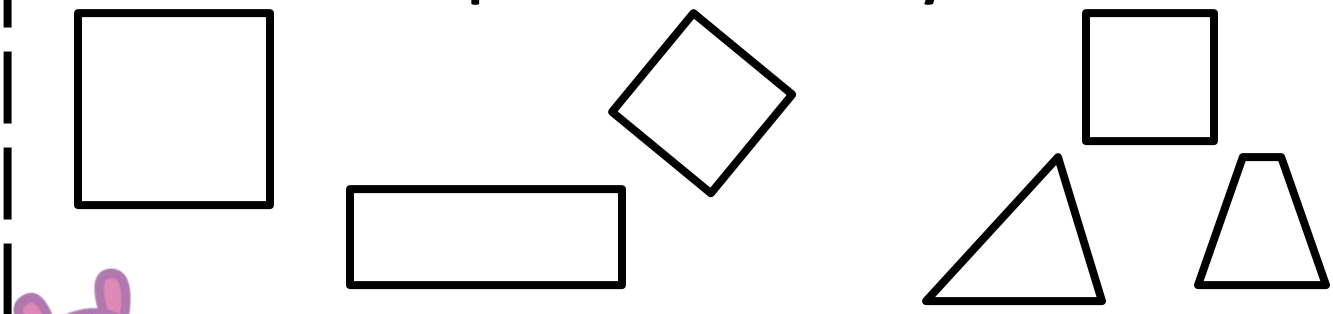
Our Favorite Sea Animals

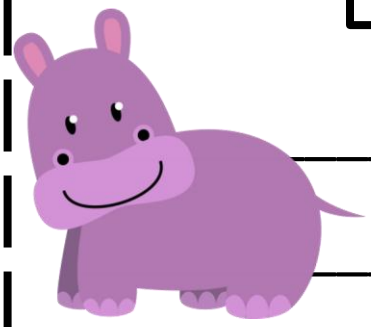
5			
4			
3			
2			
1			
			

- Which animal has the most votes? _____
- Which animal has the least votes ?_____
- How many votes does the jellyfish have ?_____
- How many more votes does the crab have than the seahorse? _____
- How many people voted in all? _____
- How many votes do the crab and seahorse have in all? _____

1.G. 1

Circle all the squares. Tell how you know.





_____

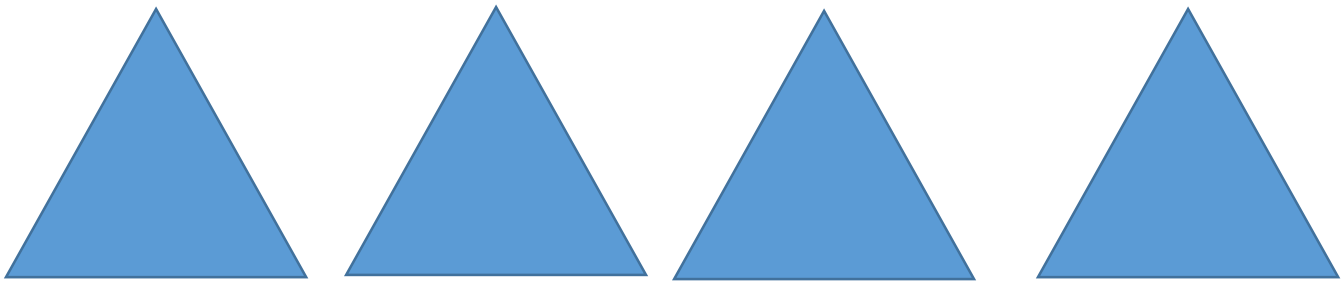
_____

_____

Draw lines to show how three friends can equally share this candy.

1.G. 3

What new shape can be made from the triangles? Cut them out and glue them together to form a geometric shape.

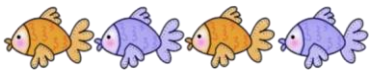


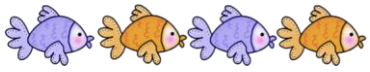
1.NBT.1

Draw Base Ten blocks to represent each number .

56

47

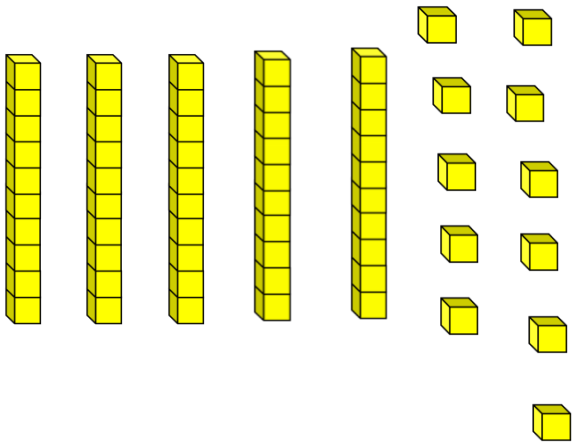




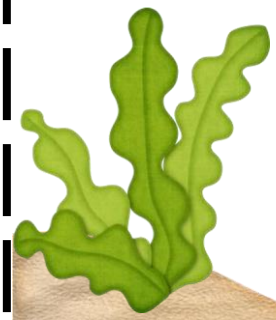
1.NBT.2a

Count the Base 10 blocks and write the number they represent.

1



= _____



1.NBT.2b

Solve the problem.

100 + 8 = _____

100 + 6 = _____

100 + 9 = _____

1.NBT.2c

Write the number of tens and ones.

76 = __ tens & __ ones

50 = __ tens & __ ones

1.NBT .3

Fill in the correct symbol.

> = <

47 ☐ 48

15 ☐ 51

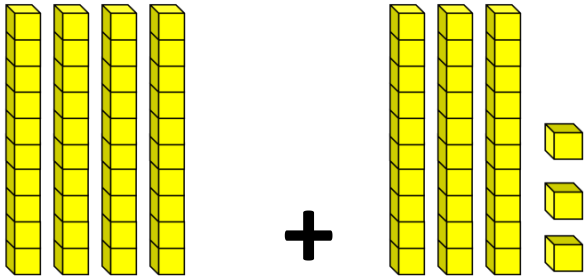
78 ☐ 87

32 ☐ 32

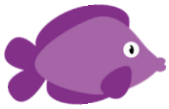
1.NBT . 4

Solve the addition problem.

40+33= ____



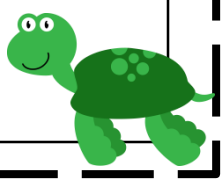
1.NBT .4



Solve the problem.

You may draw base ten blocks to help you.

35 +21	
83 -50	
27 -13	
43 + 5	



1.NBT.5

Fill in the number grid with 10 more, 10 less, 1 more, and 1 less.

	34	

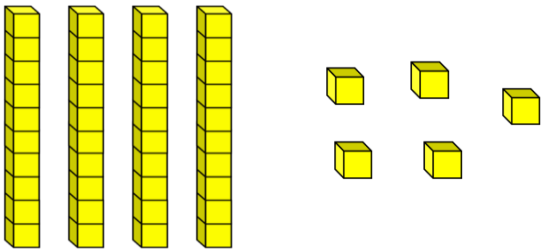
	57	

1.NBT.6

Solve the subtraction problem.
Draw an X on the Base 10 blocks you subtract.

45

-10



68

-24