FIRST GRADE

Summative Assessment
Mathematics

Name

Task 1

The first grade students collected rocks for their science center. They collected 14 medium sized rocks and 5 large rocks. How many rocks did the first graders collect?

Write a number sentence that matches this story.
Use a symbol for the unknown number.

Solve the problem.
Show your thinking with pictures, numbers, or words.

_____ rocks

OPERATIONS AND ALGEBRAIC THINKING
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.
Add and subtract within 20.
I.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.

Task 2

The class had 20 plants. During their unit on plant life, they put 4 plants in a closet without any light to see what would happen. The 4 plants wilted and died. How many plants did the class have left?

Write a number sentence that matches this story.
Use a symbol for the unknown number.

Solve the problem.
Show your thinking with pictures, numbers, or words.

_____ plants

OPERATIONS AND ALGEBRAIC THINKING
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.
Add and subtract within 20.
I.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.

Task 3

During math, the class often discusses their ideas. Decide if each idea is mathematically <u>OK</u> or <u>NOT OK.</u>

CIRCLE <u>OK</u> **if you think the idea is** <u>correct</u>**.**

CIRCLE <u>NOT OK</u> **if you think the idea is** <u>incorrect</u> **(wrong).**

a	**"5 + 4 is the same as 4 + 5. It does not matter what order you add the numbers."**	**OK**	**NOT OK**
Explain your reasoning with pictures, numbers, or words.			
b	**"When adding 7 + 4 + 3. I added the 7 and the 3 to make a 10. I then added the 4."**	**OK**	**NOT OK**
Explain your reasoning with pictures, numbers, or words.			
c.	**"When trying to solve 7 - ☐ = 5, I added 7 and 5 to get the answer."**	**OK**	**NOT OK**
Explain your reasoning with pictures, numbers, or words.			

OPERATIONS AND ALGEBRAIC THINKING
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.
I.OA.4 Understand subtraction as an unknown-addend problem.

Task 4

Look at the number sentences below. Decide if each one is <u>true</u> or <u>false</u>.

Circle the true number sentences. Put an X on the false number sentences.

7 = 6	**1 = 1**
3 = 7 – 2	**7 + 8 = 8 + 7**
6 – 2 = 2 – 6	**7 + 4 = 11**
4 + 4 = 5 + 3	**5 = 9 + 3**

OPERATIONS AND ALGEBRAIC THINKING
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.

Task 5

Determine the missing number. Write your answer in the box to complete the problem.

$5 + \square = 19$

$10 = \square + 3$

$19 - 8 = \square$

$11 - \square = 3$

OPERATIONS AND ALGEBRAIC THINKING
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.
1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Task 6

Use one of the 3 symbols to make each equation true.

< , = , >

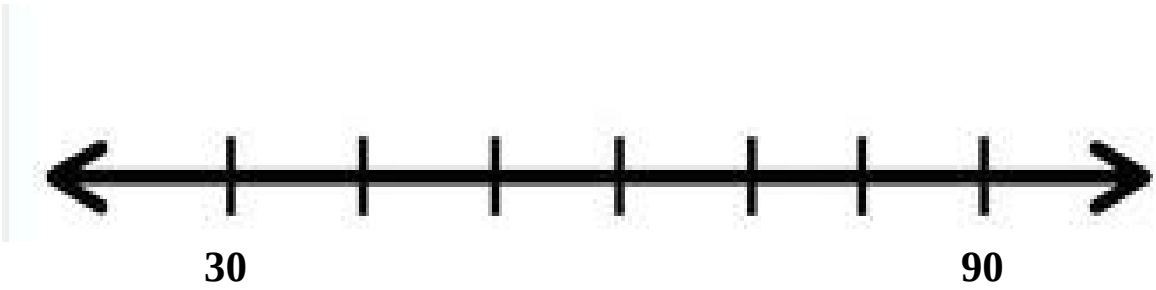
45 ◯ 45
89 ◯ 88
10 + 3 ◯ 19
20 + 4 ◯ 30 + 10

NUMBER AND OPERATIONS IN BASE TEN
Understand place value.
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 =.

Task 7

Solve 70 – 30. Use the open number line below to prove your answer is correct.

70 – 30 = ___



NUMBER AND OPERATIONS IN BASE TEN
Use place value understanding and properties of operations to add and subtract.
I.NBT.6 Subtract multiples of 10 in the range of 10-90 from multiples of 10 in the range of 10-90, using concrete models or drawings an 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 use.

Task 8

You will need 8 color tiles for part C of this task.

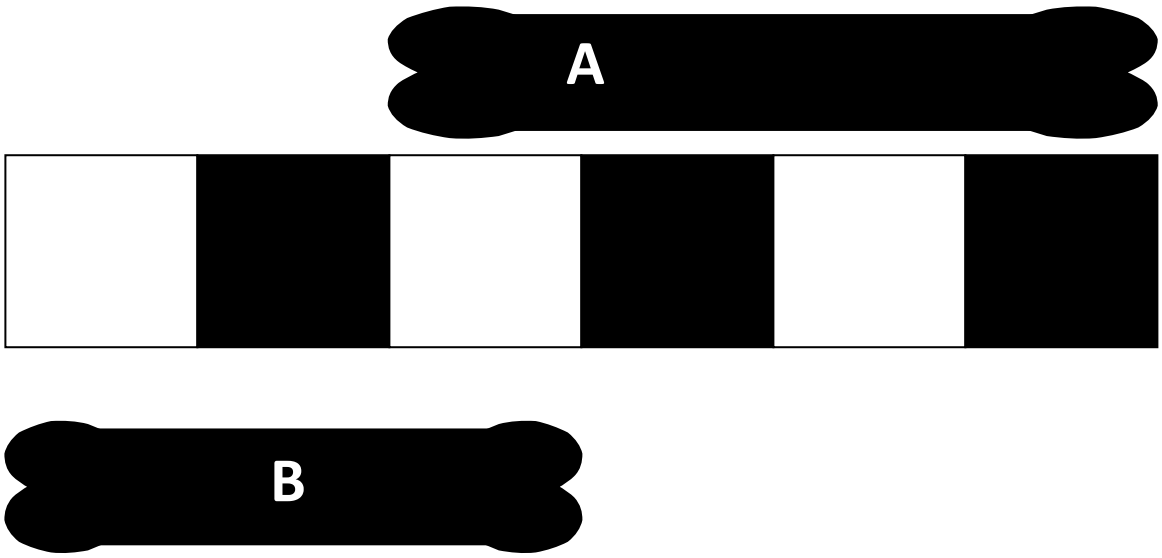
Part A:
Look at the 3 dog leashes. Put them in order from the shortest leash to the longest leash. Draw a line to match the leash with the word that best describes it.

SHORTEST LEASH

MEDIUM-SIZED LEASH

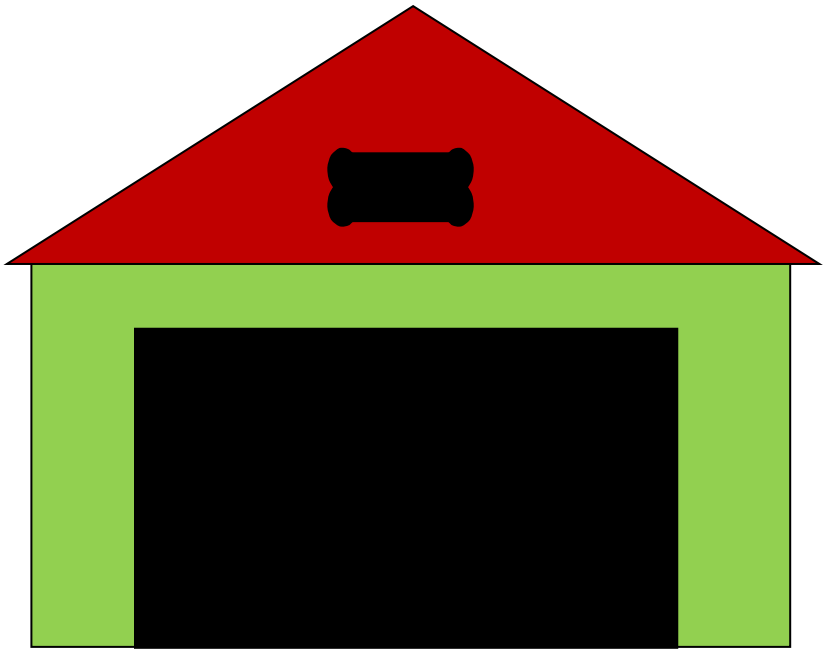
LONGEST LEASH

Part B:
Which dog bone is longer? Dog bone A or dog bone B?



Part C:

You will need 8 color tiles for this question. How long is the bottom of the dog house?

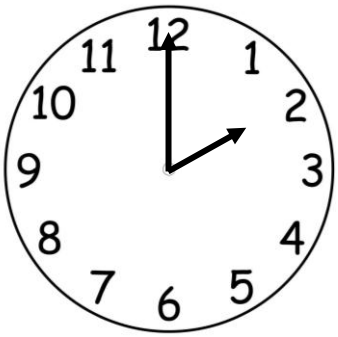


The bottom of the dog house is _____ squares long.

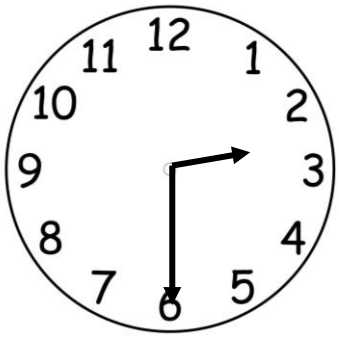
MEASUREMENT AND DATA
Measure lengths indirectly and by iterating length units.
1.MD.1 Order three objects by length; compare the lengths of two objects indirectly using a third object.
1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object 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.

Task 9

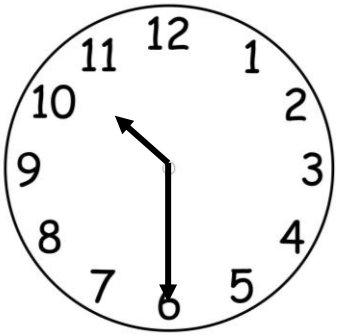
Read the time shown on each clock. If two clocks have the same time, draw a line matching the analog to the digital clock.



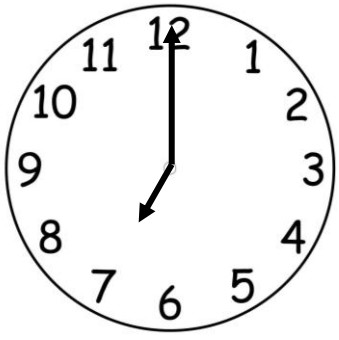
10:30



2:00



2:30

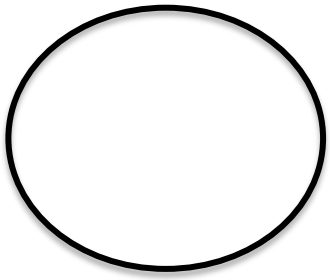


7:00

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

Task 10

Part A: You made a pizza for a friend that is coming over to play. Your father asked you to cut the pizza into fourths. Show below how you can cut the pizza into fourths:



Part B: Your mom offers to cut your sister some pizza. Your sister can have either a fourth or a half of a pizza. She is VERY hungry and loves pizza. Should she choose the fourth or the half? Circle your answer.

FOURTH HALF

Part B: You made brownies for dessert. Please shade how much you served each person depending on the amount they requested.

- **Your father wants a quarter of a brownie.**

- **Your friend wants a fourth of a brownie.**

- **Your brother wants a half of a brownie.**

GEOMETRY
1.G.3 Partition circles and rectangles into 2 and 4 equal shares, describing 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.

Task 11

The 1st grade class won an ice cream party. The teacher asked the students to sit at the table with the flavor ice cream they liked best. Each circle represents a person.

Part A: Show an organized way, such as a graph or tally chart, to represent the data above.

Favorite Ice Cream Flavors

Part B:

How many more people liked chocolate than strawberry? _____

Which was the least favorite flavor of ice cream? _____

How many students were in class the day of the ice cream party?___

MEASUREMENT AND DATA
Represent and interpret data.
1.MD.4 Organize, represent, and interpret data with up to 3 categories; ask and answer questions about the total number of data points

Task 12

Draw 2 triangles. Try to make each one look different.	**What makes a triangle a triangle?**
Draw 2 rectangles. Try to make each one look different.	**What makes a rectangle a rectangle?**
Draw 1 hexagon.	**What makes a hexagon a hexagon?**

GEOMETRY
Reason with shapes and their attributes.
1.G.1 Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes.

Task 13

Rex pulled 3 handfuls of candy out of a treat box. He pulled 4 candies the first time and 3 candies the second time. After the third pull, he had 14 candies. How many candies did he pull out on the third try?

Write a number sentence that matches this story.
Use a symbol, like a blank or a box, for the unknown number.

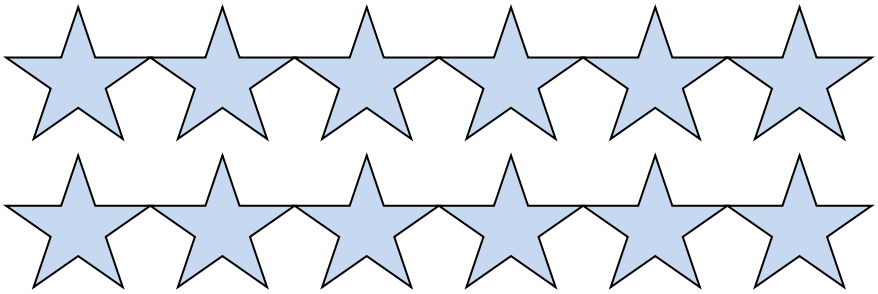
Solve the problem.
Show your thinking with pictures, numbers, or words.

_____ candies

OPERATIONS AND ALGEBRAIC THINKING
Represent and solve problems involving addition and subtraction.
I.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.

Task 14

Count the stars.



How many stars are there? _____

Circle the stars by 2's. How many groups are there? _____

How many stars will there be if you add 1 more group of 2? _____

OPERATIONS AND ALGEBRAIC THINKING
Add and subtract within 20.
1.OA.5 Relate counting to addition and subtraction

Task 15

Continue the count for each set:

A.

27, _____, _____, _____, _____, _____, 33

B.

68, _____, _____, _____, _____, _____, 62

C.

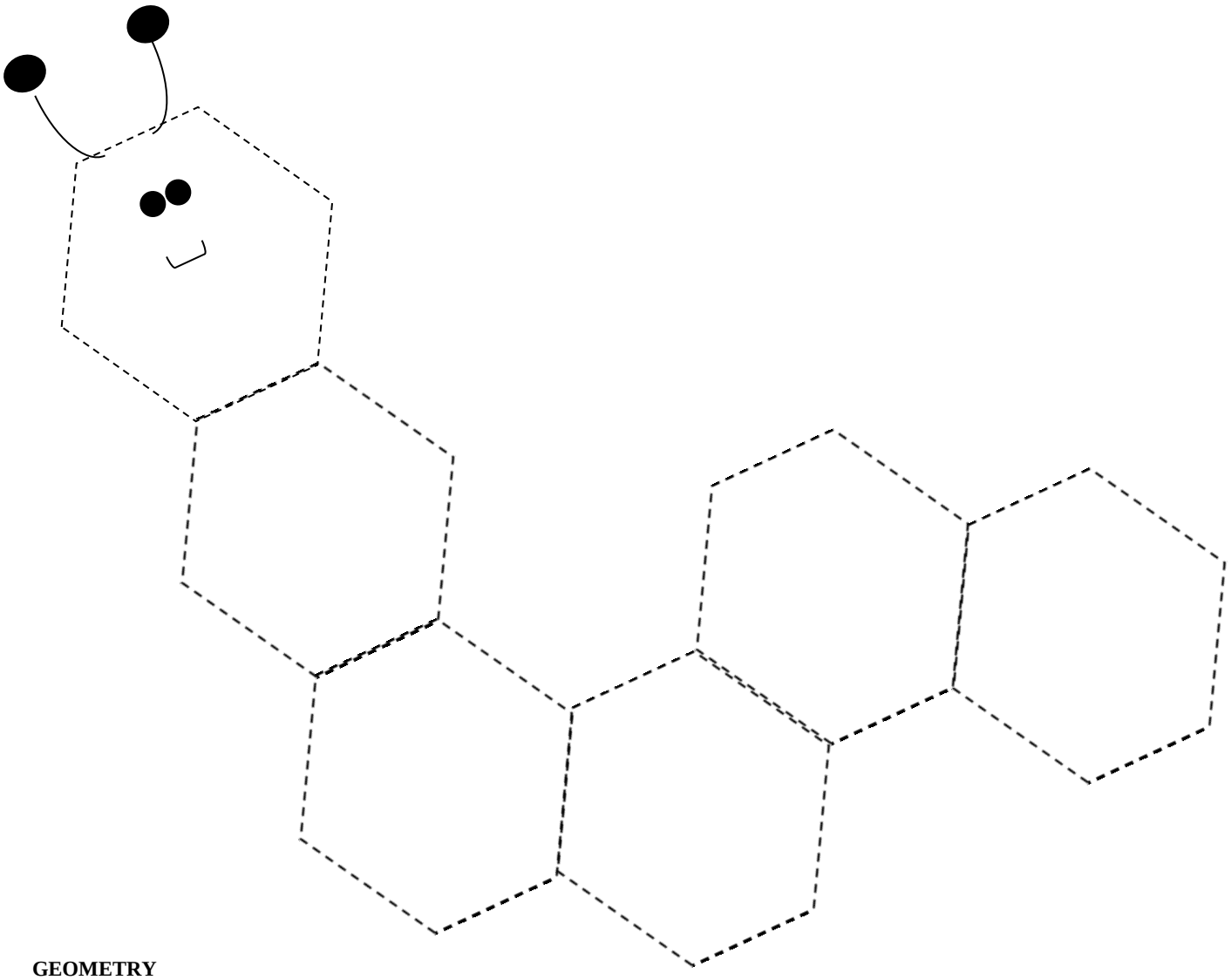
101, _____, _____, _____, _____, _____, 107

NUMBER AND OPERATIONS IN BASE TEN
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.

Task 16

Calla was using the pattern blocks to make a worm. There were no more yellow hexagons on her table. What other pattern block shapes could Calla use to finish building the body of her worm?

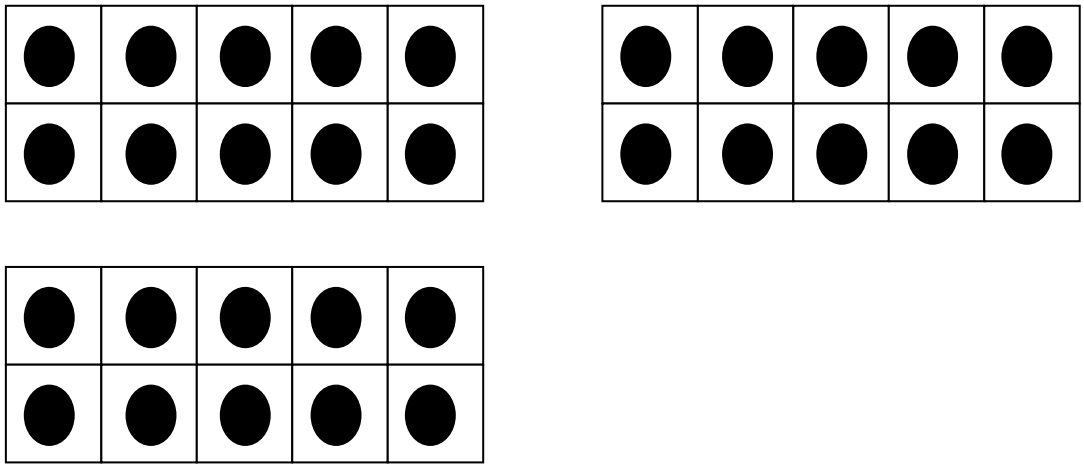
Think of two ways to cover the hexagon using other pattern block shapes. Draw your solutions on top of the two hexagons in the worm. Be sure to cover both hexagons with new shapes.



GEOMETRY
Reason with shapes and their attributes.
1.G.2 Compose 2-D and 3-D shapes to create a composite shape, and compose new shapes from the composite shape.

Task 17

The class has been adding a dot each morning of school. How many days have the students been in school so far?



The students have been in school for _____ days.
Explain how you solved the problem.

NUMBER AND OPERATIONS IN BASE TEN
Understand place value.
1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.

Task 18

35 + 20 =

Solve the problem.
Show your thinking with pictures, numbers, or words.

14 + 2 =

Solve the problem.
Show your thinking with pictures, numbers, or words.

NUMBER AND OPERATIONS IN BASE TEN
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.

Task 19

Listen carefully as your teacher calls out a problem. It will be said twice. Write your answers to the problems in the boxes below. You only have to write your answer. Problem A will be first.

Problem A	Problem B
Problem C	**Problem D**

NUMBER AND OPERATIONS IN BASE TEN
Use place value understanding and properties of operations to add and subtract.
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

Directions for the Teacher:
This test should be done over the course of 2-3 days. Read each question to the student. Allow ample time for each question. Do not allow students to work ahead.

Task 16: Allow the students to use pattern blocks for this task.

Task 19: Read the questions below:

A. What is ten more than 25?

B. What is ten less than 49?

C. What is ten more than 104?

D. What is ten less than 18?