



A STORY OF UNITS



Mathematics Curriculum



Grade 1 • MODULE 3

Ordering and Comparing Length Measurements as Numbers

PROBLEM SETS

Info for parents: <http://bit.ly/pastmath>

Video tutorials: <http://embarc.online>

Version 3

Table of Contents

GRADE 1 • MODULE 3

Ordering and Comparing Length Measurements as Numbers

Module Overviewi

Topic A: Indirect Comparison in Length Measurement 3.A.1

Topic B: Standard Length Units3.B.1

Topic C: Non-Standard and Standard Length Units3.C.1

Topic D: Data Interpretation 3.D.1

Module Assessment 3.S.1

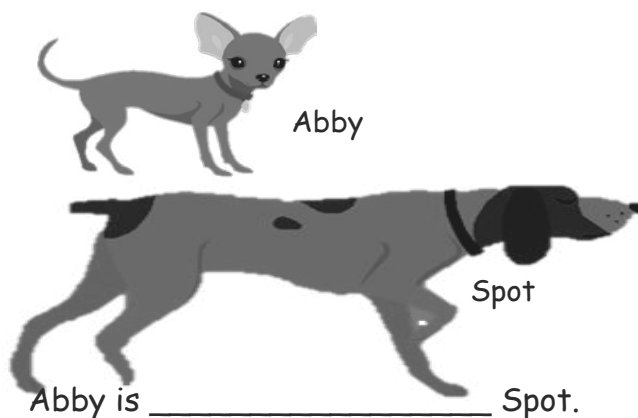
NOTE: Student sheets should be printed at 100% scale to preserve the intended size of figures for accurate measurements. Adjust copier or printer settings to *actual size* and set page scaling to *none*.

Name _____

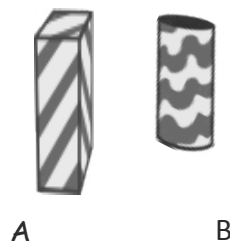
Date _____

Write the words **longer than** or **shorter than** to make the sentences true.

1.



2.



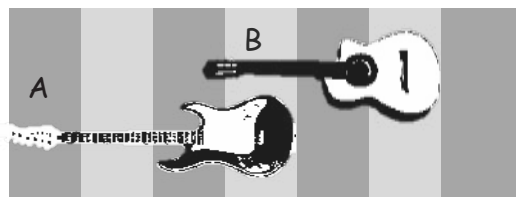
3.

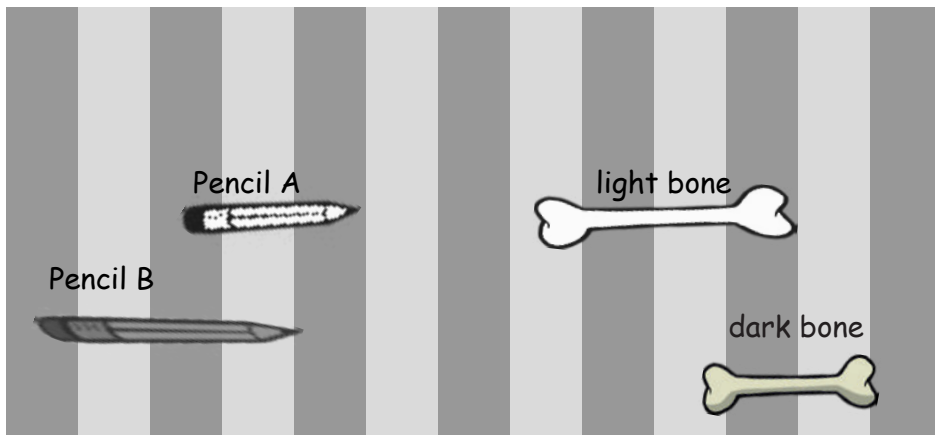


4.



5.





6. Pencil B is _____ Pencil A.
7. The dark bone is _____ the light bone.
8. Circle true or false.

The light bone is shorter than Pencil A. **True** or **False**

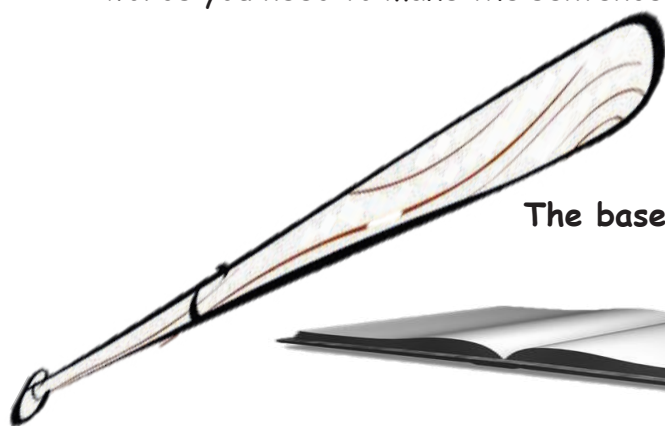
9. Find 3 school supplies. Draw them here in order from **shortest** to **longest**. Label each school supply.

A large empty rectangular box for drawing school supplies.

Name _____

Date _____

1. Use the paper strip provided by your teacher to measure each **picture**. Circle the words you need to make the sentence true. Then, fill in the blank.



The baseball bat is

longer than
shorter than
the same length as

the paper strip.

The book is

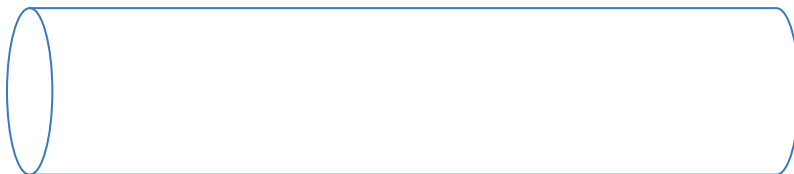
longer than
shorter than
the same length as

the paper strip.

The baseball bat is _____ the book.

2. Complete the sentences with **longer than**, **shorter than**, or **the same length as** to make the sentences true.

a.



The tube is _____ the cup.



b.



The iron is _____ the ironing board.

Use the measurements from the first page. Circle the word that makes the sentences true.

3. The baseball bat is (**longer/shorter**) than the cup.
4. The cup is (**longer/shorter**) than the ironing board.
5. The ironing board is (**longer/shorter**) than the book.
6. Order these objects from shortest to longest:

cup, tube, and paper strip

Draw a picture to help you complete the measurement statements. Circle the words that make each statement true.

7. Sammy is taller than Dion.
Janell is taller than Sammy.
Dion is (**taller than/shorter than**) Janell.

8. Laura's necklace is longer than Mihal's necklace.
Laura's necklace is shorter than Sarai's necklace.
Sarai's necklace is (**longer than/shorter than**) Mihal's necklace.

Name _____

Date _____

1. In a playroom, Lu Lu cut a piece of string that measured the distance from the doll house to the park. She took the same string and tried to measure the distance between the park and the store, but she ran out of string!

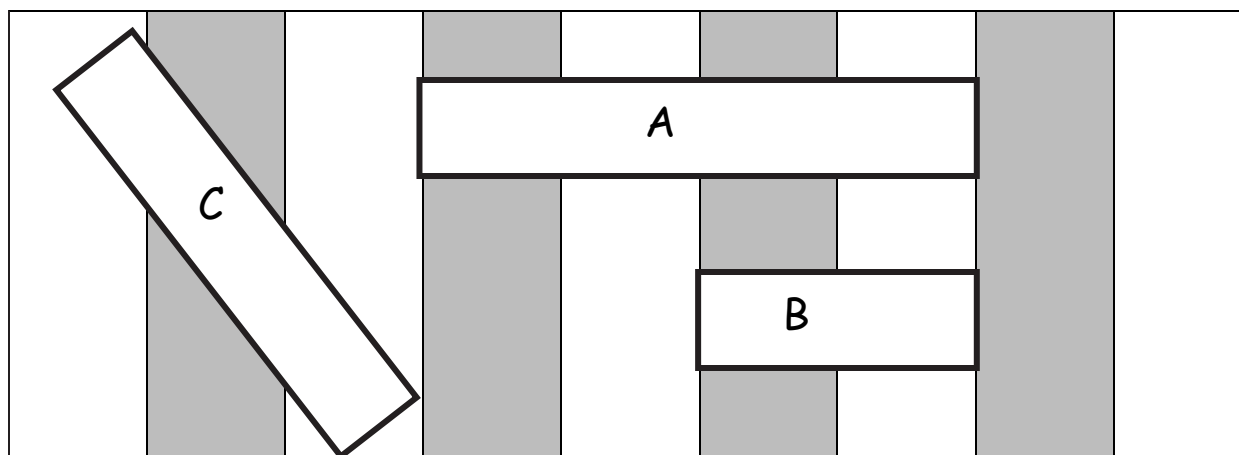
Which is the longer path? Circle your answer.

the doll house to the park

the park to the store







Use the picture to answer the questions about the rectangles.



2. Which is the shortest rectangle? _____
3. If Rectangle A is longer than Rectangle C, the longest rectangle is _____.
4. Order the rectangles from shortest to longest: _____

Name _____

Date _____

| Classroom Objects | Length Using Centimeter Cubes |
|--|-------------------------------|
| glue stick  | _____ centimeter cubes long |
| dry erase marker  | _____ centimeter cubes long |
| craft stick  | _____ centimeter cubes long |
| paper clip  | _____ centimeter cubes long |
| | _____ centimeter cubes long |
| | _____ centimeter cubes long |
| | _____ centimeter cubes long |

Name _____

Date _____

Measure the length of each picture with your cubes. Complete the statements below.

1. The pencil is _____ centimeter cubes long.



2. The pan is _____ centimeter cubes long.



3. The shoe is _____ centimeter cubes long.



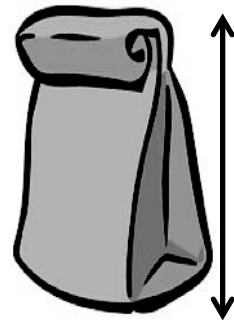
4. The bottle is _____ centimeter cubes long.



5. The paintbrush is _____ centimeter cubes long.



6. The bag is _____ centimeter cubes long.



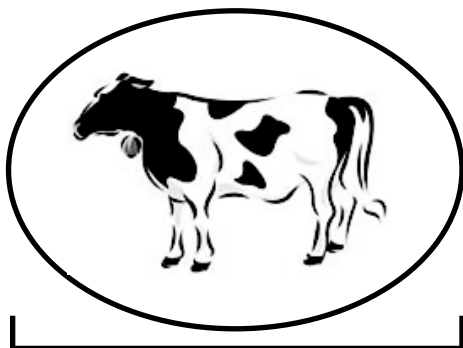
7. The ant is _____ centimeter cubes long.



8. The cupcake is _____ centimeter cubes long.



9.



The cow sticker is _____ centimeter cubes long.

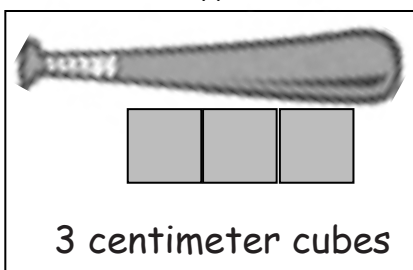
10.



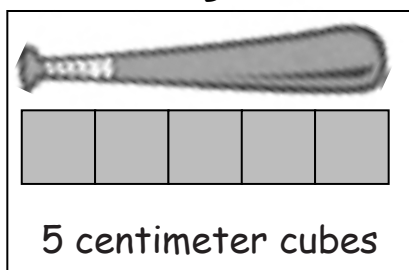
The vase is _____ centimeter cubes long.

11. Circle the picture that shows the correct way to measure.

A



B



12. How would you fix the picture that shows an incorrect measurement?

Name _____

Date _____

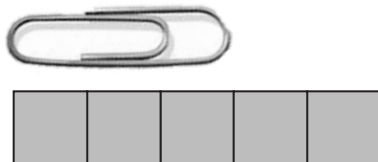
1. Circle the object(s) that are measured correctly.

a.



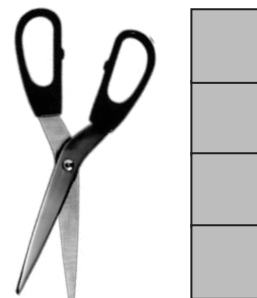
3 centimeters long

b.



5 centimeters long

c.



4 centimeters long

2. Measure the paper clip in 1(b) with your cubes. Then, check the cubes with your centimeter ruler.

The paper clip is _____ *centimeter cubes* long.

The paper clip is _____ *centimeters* long.

Be ready to explain
why these are the
same or different
during the Debrief!

3. Use centimeter cubes to measure the length of each picture from left to right.
Complete the statement about the length of each picture in centimeters.



a. The hamburger picture is _____ centimeters long.



b. The hotdog picture is _____ centimeters long.



c. The bread picture is _____ centimeters long.

4. Use centimeter cubes to measure the objects below. Fill in the length of each object.

a.



The eraser is about _____
centimeters long.

b.



The hair clip is about _____
centimeters long.

c.



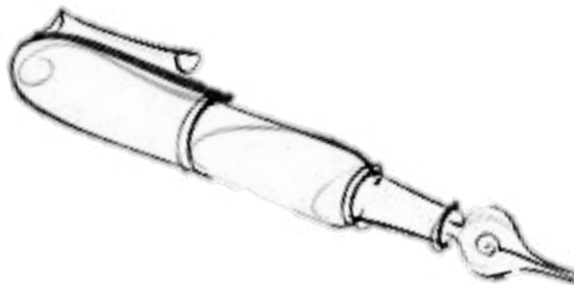
The key is about _____
centimeters long.

d.



The marker is about _____
centimeters long.

e.



The pen is about _____ centimeters long.

5. The eraser is longer than the _____ but it is shorter than the _____

6. Circle the word that makes the sentence true.

If a paper clip is shorter than the key, then the marker is **longer/shorter** than the paper clip.

Name _____

Date _____

1. Order the bugs from longest to shortest by writing the bug names on the lines. Use centimeter cubes to check your answer. Write the length of each bug in the space below the pictures.

The bugs from longest to shortest are:

Fly



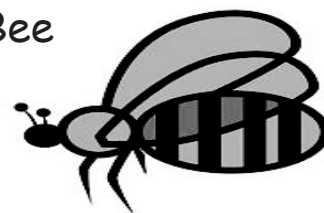
_____ centimeters

Caterpillar



_____ centimeters

Bee



_____ centimeters

2. Order the objects below from shortest to longest using the numbers 1, 2, and 3. Use your centimeter cubes to check your answers, and then complete the sentences for problems d, e, f, and g.



a. The noise maker: _____

b. The balloon: _____

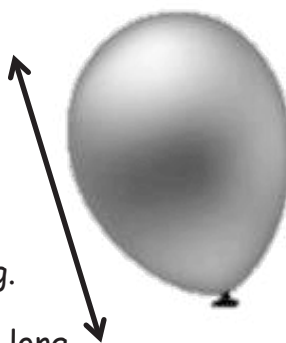
c. The present: _____

d. The present is about _____ centimeters long.

e. The noise maker is about _____ centimeters long.

f. The balloon is about _____ centimeters long.

g. The noise maker is about _____ centimeters longer than the present.



Use your centimeter cubes to model each length and answer the question. Write a statement for your answer.

3. Peter's toy T-rex is 11 centimeters tall, and his toy velociraptor is 6 centimeters tall. How much taller is the T-rex than the velociraptor?

4. Miguel's pencil rolled 17 centimeters and Sonya's pencil rolled 9 centimeters. How much less did Sonya's pencil roll than Miguel's?

5. Tania makes a cube tower that is 3 centimeters taller than Vince's tower. If Vince's tower is 9 centimeters tall, how tall is Tania's tower?

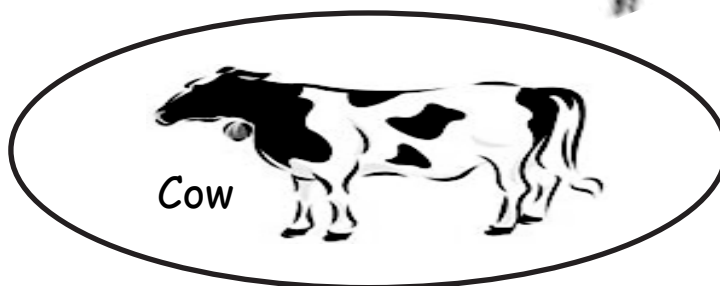
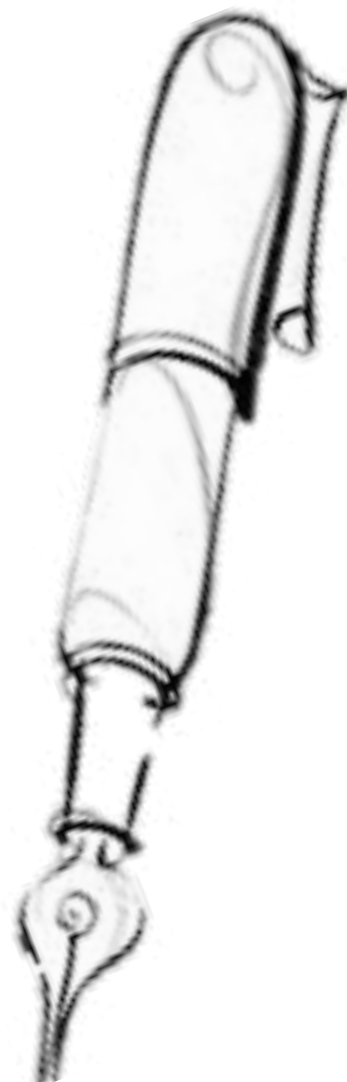
Name _____

Date _____

1. Measure the length of each object with **LARGE** paper clips. Fill in the chart with your measurements.



| Name of Object | Number of Large Paper Clips |
|----------------------------------|-----------------------------|
| a. bottle | |
| b. caterpillar | |
| c. key | |
| d. pen | |
| e. cow sticker | |
| f. Problem Set paper | |
| g. reading book (from classroom) | |

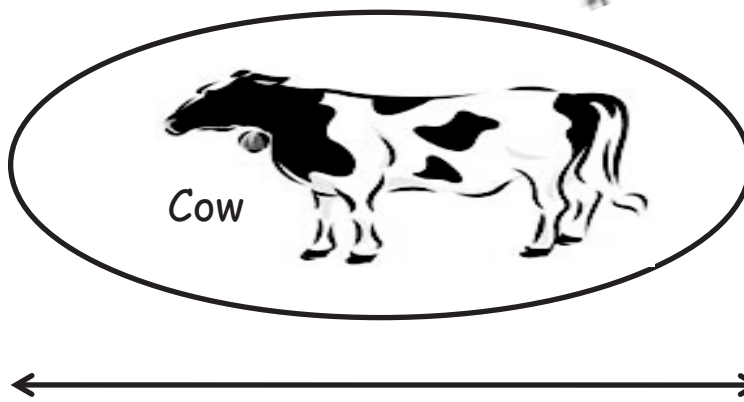
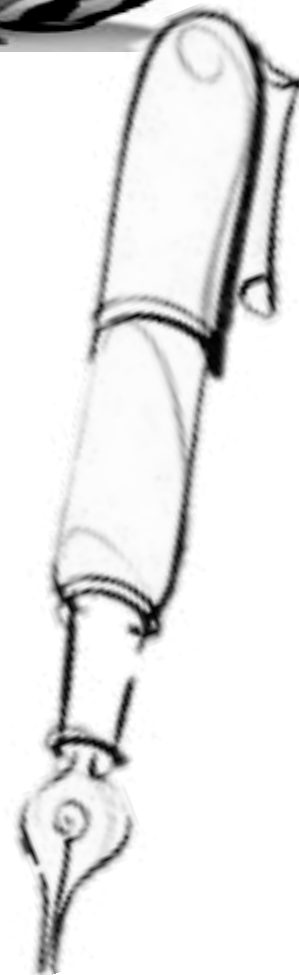


Cow

2. Measure the length of each object with **SMALL** paper clips. Fill in the chart with your measurements.



| Name of Object | Number of Small Paper Clips |
|----------------------------------|-----------------------------|
| a. bottle | |
| b. caterpillar | |
| c. key | |
| d. pen | |
| e. cow sticker | |
| f. Problem Set paper | |
| g. reading book (from classroom) | |



Name _____

Date _____

Circle the length unit you will use to measure. Use the same length unit for all objects.

Small Paperclips



Large Paperclips



Toothpicks



Centimeter Cubes



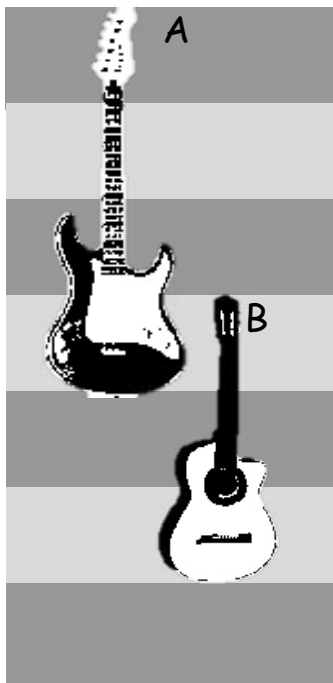
1. Measure each object listed on the chart and record the measurement. Add the names of other objects in the classroom and record their measurements.

| Classroom Object | Measurement |
|-------------------------|-------------|
| a. glue stick | |
| b. dry erase marker | |
| c. unsharpened pencil | |
| d. personal white board | |
| e. | |
| f. | |
| g. | |

Name _____

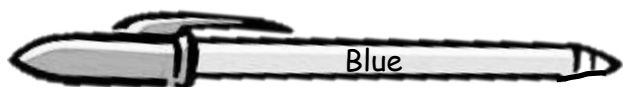
Date _____

1. Look at the picture below. How much **longer** is Guitar A than Guitar B?

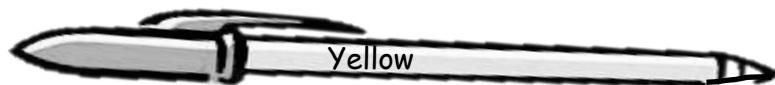


Guitar A is _____ unit(s) **longer** than Guitar B.

2. Measure each object with centimeter cubes.



The blue pen is _____.



The yellow pen is _____.

3. How much **longer** is the yellow pen than the blue pen?

The yellow pen is _____ centimeters **longer** than the blue pen.

4. How much **shorter** is the blue pen than the yellow pen?

The blue pen is _____ centimeters **shorter** than the yellow pen.

Use your centimeter cubes to model each problem. Then, solve by drawing a picture of your model and writing a number sentence and a statement.

5. Austin wants to make a train that is 13 centimeter cubes long. If his train is already 9 centimeter cubes long, how many **more** cubes does he need?

6. Kea's boat is 12 centimeters long, and Megan's boat is 8 centimeters long. How much **shorter** is Megan's boat than Kea's boat?

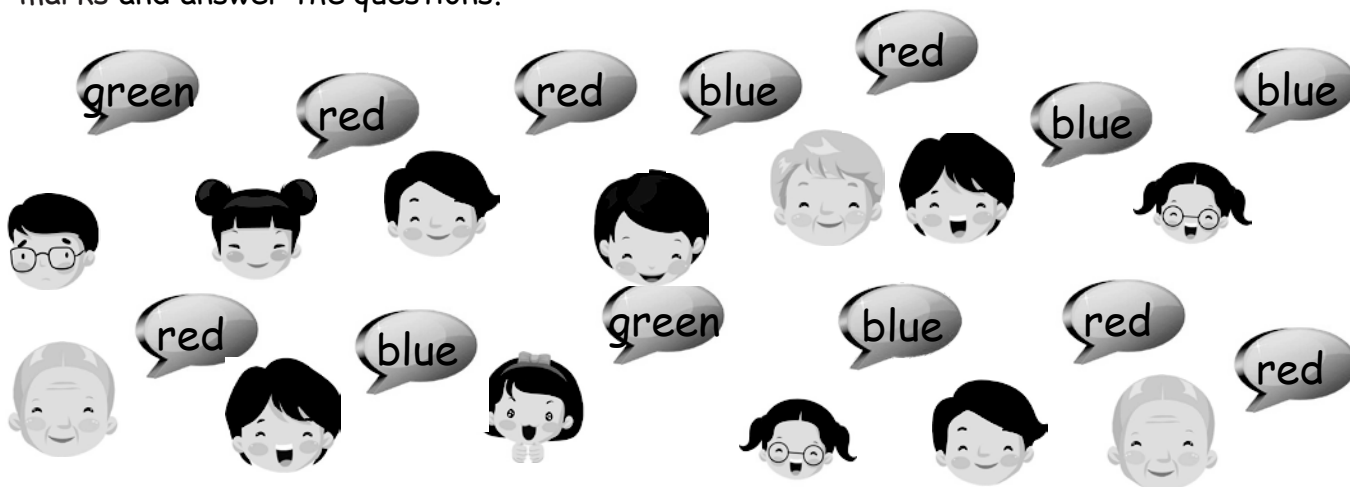
7. Kim cuts a piece of ribbon for her mom that is 14 centimeters long. Her mom says the ribbon is 8 centimeters too long. How **long** should the ribbon be?

8. The tail of Lee's dog is 15 centimeters long. If the tail of Kit's dog is 9 centimeters long, how much **longer** is the tail of Lee's dog than the tail of Kit's dog?

Name _____

Date _____

A group of people were asked to say their favorite color. Organize the data using tally marks and answer the questions.



| | |
|-------|--|
| Red | |
| Green | |
| Blue | |

1. How many people chose red as their favorite color? _____ people like red.
2. How many people chose blue as their favorite color? _____ people like blue.
3. How many people chose green as their favorite color? _____ people like green.
4. Which color received the least amount of votes? _____
5. Write a number sentence that tells the total number of people who were asked their favorite color.

Name _____

Date _____

Welcome to Data Day! Follow the directions to **collect** and **organize** data. Then, **ask** and **answer questions** about the data.

- Choose a question. Circle your choice.
- Pick 3 answer choices.
- Ask your classmates the question and show them the 3 choices. Record the data on a class list.
- Organize the data in the chart below.

| | | | | |
|-------------------------------|-------------------------------|--|--|---|
| Which fruit do you like best? | Which snack do you like best? | What do you like to do on the playground the most? | Which school subject do you like the best? | Which animal would you most like to be? |
|-------------------------------|-------------------------------|--|--|---|

| Answer Choices | Number of Students |
|----------------|--------------------|
| | |
| | |
| | |

- Complete the question sentence frames to ask questions about your data.
- Trade papers with a partner, and have your partner answer your questions.

1. How many students liked _____ the best?
2. Which category received the fewest votes? _____
3. How many more students liked _____ than _____?
4. What is the total number of students who liked _____ or _____ the best?
5. How many students answered the question? How do you know?

Name _____

Date _____

Use squares with no gaps or overlaps to organize the data from the picture. Line up your **squares** carefully.

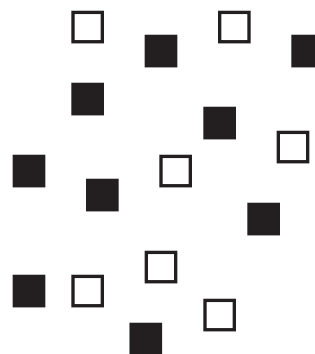
□ = 1 student

Favorite Ice Cream Flavor

Number of Students

Flavors

| | |
|-------------|--|
| □ vanilla | |
| ■ chocolate | |



1. How many **more** students liked chocolate than liked vanilla? _____ students

2. How many **total** students were asked about their favorite ice cream flavor?

_____ students

Ties on Shoes

Number of Students

□ = 1 student
























Types of
Shoe Ties

| | |
|---------|-----------------|
| velcro | □ □ □ □ □ |
| laces | □ □ □ □ □ □ □ □ |
| no ties | □ □ □ □ □ □ □ |

3. Write a number sentence to show how many **total** students were asked about their shoes.

4. Write a number sentence to show how many **fewer** students have Velcro ties on their shoes than laces.

Each student in the class added a sticky note to show his or her favorite kind of pet. Use the table to answer the questions.

| Favorite Pet | | |
|---|--|--|
| <div>dog</div>  | <div>fish</div>  |  |
| <div>        </div> | <div>    </div> | <div>     </div> |

5. How many students chose dogs or cats as their favorite pet?

_____ students

6. How many more students chose dogs as their favorite pet than cats?

_____ students

7. How many more students chose cats than fish?




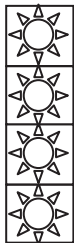
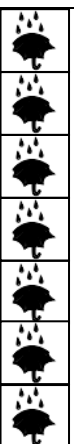

_____ students

Name _____

Date _____

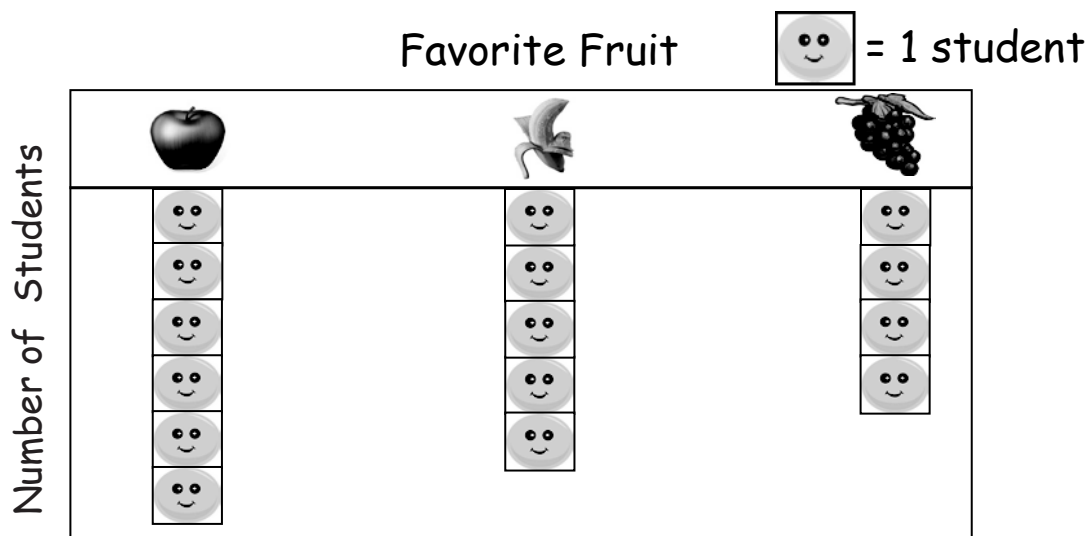
Use the table to answer the questions. Fill in the blank, and write a number sentence to the right to solve the problem.

School Day Weather

| | sunny  | rainy  | cloudy  |
|-----------------------|---|---|--|
| Number of School Days |  |  |  |

- How many more day(s) were cloudy than sunny?
_____ more day(s) were cloudy than sunny. _____
- How many fewer days were cloudy than rainy?
_____ more day(s) were cloudy than rainy. _____
- How many more days were rainy than sunny?
_____ more day(s) were rainy than sunny. _____
- How many total days did the class keep track of the weather?
_____ total days
- If the next 3 school days are sunny, how many of the school days will be sunny in all?
_____ days will be sunny.

Use the table to answer the questions. Fill in the blank, and write a number sentence that helps you solve the problem.



6. How many fewer students chose bananas than apples?

_____ fewer students chose bananas than apples. _____

7. How many more students chose bananas than grapes?

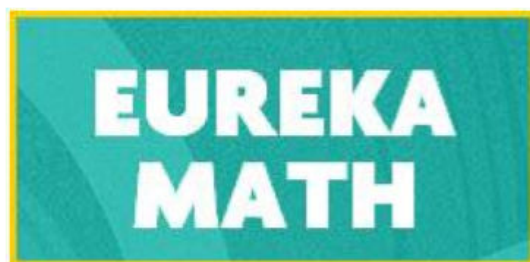
_____ more students chose bananas than grapes. _____

8. How many fewer students chose grapes than apples?

_____ fewer students chose grapes than apples. _____

9. Some more students answered about their favorite fruits. If the new total number of students who answered is 20, how many more students answered?

_____ more students answered the question. _____



Video tutorials: <http://embarc.online>



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