Lesson 1 Problem Set

Name ________________________________ Date ________________

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

1. Abby is ________________ Spot.

2. B is ________________ A.

3. The American flag hat
   is ___________________________
   the chef hat.

4. The darker bat’s wing span
   is ___________________________
   the lighter bat’s wing span.

5. Guitar B is _______________________
   Guitar A.
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.
Name __________________________________________ Date ________________

Follow the directions. Complete the sentences.

1. Circle the **longer** rabbit.

   - [ ] Peter
   - [ ] Floppy

   ________ is longer than ________.

2. Circle the **shorter** fruit.

   - [ ] Apple (A)
   - [ ] Pear (B)

   ____ is shorter than ____.

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

3. The glue
   is ________________ the ketchup.

4. The dragonfly’s wing span
   is ________________ the butterfly’s wing span.
5. Paintbrush A is ________________________ Paintbrush B.

6. The spoon is ________________________ the fork.

7. Circle true or false.

   The spoon is shorter than Paintbrush B.  True  or  False

8. Find 3 objects in your room. Draw them here in order from shortest to longest.
   Label each object.
The ____________ is longer than the ____________.

The ____________ is shorter than the ____________.

*longer than and shorter than* sentence frames
Lesson 2 Problem Set

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 __________________________ the book.

The baseball bat is __________________________ the paper strip.

The book is __________________________ 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.

Lesson 2: Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string.
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.
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.

1. The sundae is shorter than the paper. The spoon is longer than the paper. The spoon is the same length as the sundae.

2. The balloon is longer than the cake.

3. The ball is shorter than the paper. So, the shoe is shorter than the ball.
Use the measurements from the first page. Circle the word that makes the sentences true.

4. The spoon is (longer/shorter) than the cake.

5. The balloon is (longer/shorter) than the sundae.

6. The shoe is (longer/shorter) than the balloon.

7. Order these objects from shortest to longest:
   cake, spoon, and paper

____________________  ______________________  _________________

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

8. Marni’s hair is shorter than Wesley’s hair.
   Marni’s hair is longer than Bita’s hair.
   Bita’s hair is (longer/shorter) than Wesley’s hair.

9. Elliott is shorter than Brady.
   Sinclair is shorter than Elliott.
   Brady is (longer/shorter) than Sinclair.
Lesson 2: Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

hide zero cards, numeral side of ones digits (Copy double-sided with next page.)
### Lesson 2 Fluency Template

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
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</tr>
</tbody>
</table>

hide zero cards, dot side of ones digits (Copy double-sided with previous page.)

Lesson 2: Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string.
Lesson 2: Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string.

hide zero cards, numeral side of tens digits, 10 – 40 (Copy double-sided with next page.)
hide zero cards, dot side of tens digits, 10 – 40 (Copy double-sided with previous page.)
Lesson 2: Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string.
If ________ is longer than my foot and ________ is shorter than my foot, then ________ is longer than ________.

My foot is about the same length as ________.

Indirect comparison statements

Lesson 2: Compare length using indirect comparison by finding objects longer than, shorter than, and equal in length to that of a string.
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

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: ______________  ______________  ______________
Use the picture to answer the questions about the students’ paths to school.

5. How long is Caitlyn’s path to school? ________________ blocks

6. How long is Toby’s path to school? ________________ blocks

7. Joe’s path is shorter than Caitlyn’s. Draw Joe’s path.

Circle the correct word to make the statement true.

8. Toby’s path is longer/shorter than Joe’s path.

9. Who took the shortest path to school? ________________

10. Order the paths from shortest to longest.

_________________________  _________________________  _______________________

Lesson 3: Order three lengths using indirect comparison.
1. The string that measures the path from the garden to the tree is longer than the path between the tree and the flowers. Circle the shorter path.

   the garden to the tree
   the tree to the flowers

Use the picture to answer the questions about the rectangles.

2. Which is the longest rectangle? ________________

3. If Rectangle A is longer than Rectangle C, the shortest rectangle is ________________.

4. Order the rectangles from shortest to longest.
   ________________  ________________  ________________
Use the picture to answer the questions about the children’s paths to the beach.

5. How long is Jon’s path to the beach? ________________ blocks

6. How long is Cam’s path to the beach? ________________ blocks

7. Jon’s path is longer than Sal’s path. Draw Sal’s path.

Circle the correct word to make the statement true.

8. Cam’s path is longer/shorter than Sal’s path.

9. Who took the shortest path to the beach? _____________________

10. Order the paths from shortest to longest.

_________________  ________________  _______________
Lesson 3: Order three lengths using indirect comparison.

city blocks grid
### Lesson 4: Express the length of an object using centimeter cubes as length units to measure with no gaps or overlaps.

<table>
<thead>
<tr>
<th>Classroom Objects</th>
<th>Length Using Centimeter Cubes</th>
</tr>
</thead>
<tbody>
<tr>
<td>glue stick</td>
<td>_____ centimeter cubes long</td>
</tr>
<tr>
<td>dry erase marker</td>
<td>_____ centimeter cubes long</td>
</tr>
<tr>
<td>craft stick</td>
<td>_____ centimeter cubes long</td>
</tr>
<tr>
<td>paper clip</td>
<td>_____ centimeter cubes long</td>
</tr>
<tr>
<td></td>
<td>_____ centimeter cubes long</td>
</tr>
<tr>
<td></td>
<td>_____ centimeter cubes long</td>
</tr>
<tr>
<td></td>
<td>_____ centimeter cubes long</td>
</tr>
</tbody>
</table>
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

3 centimeter cubes

B

5 centimeter cubes

12. How would you fix the picture that shows an incorrect measurement?
Measure the length of each picture with your cubes. Complete the statements below.

1. The lollipop is ______ centimeter cubes long.

2. The stamp is ______ centimeter cubes long.

3. The purse is ______ centimeter cubes long.

4. The candle is ______ centimeter cubes long.

5. The bow is ______ centimeter cubes long.

6. The cookie is ______ centimeter cubes long.

7. The mug is ______ centimeter cubes long.

8. The ketchup is about ______ centimeter cubes long.

9. The envelope is about ______ centimeter cubes long.

Lesson 4: Express the length of an object using centimeter cubes as length units to measure with no gaps or overlaps.
10. Circle the picture that shows the correct way to measure.

A

3 centimeter cubes

B

4 centimeter cubes

C

4 centimeter cubes

D

4 centimeter cubes

11. Explain what is wrong with the measurements for the pictures you did NOT circle.
Lesson 5 Problem Set

Name ___________________________________________ Date ________________

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

   3 centimeters long 5 centimeters long 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.

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.

Be ready to explain why these are the same or different during the Debrief!
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.
1. Justin collects stickers. Use centimeter cubes to measure Justin's stickers. Complete the sentences about Justin's stickers.

a. The motorcycle sticker is ______ centimeters long.

b. The car sticker is ______ centimeters long.

c. The fire truck sticker is ______ centimeters long.

d. The row boat sticker is ______ centimeters long.

e. The airplane sticker is ______ centimeters long.
2. Use the stickers’ measurements to order the stickers of the **fire truck**, the **row boat**, and the **airplane** from longest to shortest. You can use drawings or names to order the stickers.

   ![](image)

   **Longest**  \[\rightarrow\]  **Shortest**

3. Fill in the blanks to make the statements true. (There may be more than one correct answer.)

   a. The airplane sticker is longer than the ____________ sticker.

   b. The row boat sticker is longer than the ____________ sticker and

   shorter than the ____________ sticker.

   c. The motorcycle sticker is shorter than the ____________ sticker and longer

   than the ____________ sticker.

   d. If Justin gets a new sticker that is longer than the row boat, it will also be

   longer than which of his other stickers? ________________
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          Caterpillar         Bee

   ____ centimeters   ____ centimeters   ____ 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.
Lesson 6 Problem Set

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?
1. Natasha’s teacher wants her to put the fish in order from longest to shortest. Measure each fish with the centimeter cubes that your teacher gave you.

2. Order fish A, B, and C from longest to shortest.
3. Use all of the fish measurements to complete the sentences.
   
   a. Fish A is longer than Fish _______ and shorter than Fish _______.
   
   b. Fish C is shorter than Fish _______ and longer than Fish _______.
   
   c. Fish _______ is the shortest fish.
   
   d. If Natasha gets a new fish that is shorter than Fish A, list the fish that the new fish is also shorter than.

Use your centimeter cubes to model each length, and answer the question.

4. Henry gets a new pencil that is 19 centimeters long. He sharpens the pencil several times. If the pencil is now 9 centimeters long, how much shorter is the pencil now than when it was new?

5. Malik and Jared each found a stick at the park. Malik found a stick that was 11 centimeters long. Jared found a stick that was 17 centimeters long. How much longer was Jared’s stick?
Lesson 7 Problem Set

Name ___________________________ Date ________________

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

<table>
<thead>
<tr>
<th>Name of Object</th>
<th>Number of Large Paper Clips</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. bottle</td>
<td></td>
</tr>
<tr>
<td>b. caterpillar</td>
<td></td>
</tr>
<tr>
<td>c. key</td>
<td></td>
</tr>
<tr>
<td>d. pen</td>
<td></td>
</tr>
<tr>
<td>e. cow sticker</td>
<td></td>
</tr>
<tr>
<td>f. Problem Set paper</td>
<td></td>
</tr>
<tr>
<td>g. reading book (from classroom)</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Name of Object</th>
<th>Number of Small Paper Clips</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. bottle</td>
<td></td>
</tr>
<tr>
<td>b. caterpillar</td>
<td></td>
</tr>
<tr>
<td>c. key</td>
<td></td>
</tr>
<tr>
<td>d. pen</td>
<td></td>
</tr>
<tr>
<td>e. cow sticker</td>
<td></td>
</tr>
<tr>
<td>f. Problem Set paper</td>
<td></td>
</tr>
<tr>
<td>g. reading book (from classroom)</td>
<td></td>
</tr>
</tbody>
</table>
Cut the strip of paper clips. Measure the length of each object with the **large** paper clips to the right. Then, measure the length with the **small** paper clips on the back.

1. Fill in the chart on the back of the page with your measurements.
Lesson 7 Homework

Lesson 7:

Measure the same objects from Topic B with different non-standard units simultaneously to see the need to measure with a consistent unit.

<table>
<thead>
<tr>
<th>Name of Object</th>
<th>Length in Large Paper Clips</th>
<th>Length in Small Paper Clips</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. paintbrush</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. scissors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. eraser</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. crayon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. glue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Find objects around your home to measure. Record the objects you find and their measurements on the chart.

<table>
<thead>
<tr>
<th>Name of Object</th>
<th>Length in Large Paper Clips</th>
<th>Length in Small Paper Clips</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 8: Understand the need to use the same units when comparing measurements with others.

Name ___________________________ Date __________________

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

<table>
<thead>
<tr>
<th>Small Paperclips</th>
<th>Large Paperclips</th>
<th>Toothpicks</th>
<th>Centimeter Cubes</th>
</tr>
</thead>
</table>

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.

<table>
<thead>
<tr>
<th>Classroom Object</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. glue stick</td>
<td></td>
</tr>
<tr>
<td>b. dry erase marker</td>
<td></td>
</tr>
<tr>
<td>c. unsharpened pencil</td>
<td></td>
</tr>
<tr>
<td>d. personal white board</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td></td>
</tr>
</tbody>
</table>
Circle the length unit you will use to measure. Use the same length unit for all objects.

<table>
<thead>
<tr>
<th>Home Object</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. fork</td>
<td></td>
</tr>
<tr>
<td>b. picture frame</td>
<td></td>
</tr>
<tr>
<td>c. pan</td>
<td></td>
</tr>
<tr>
<td>d. shoe</td>
<td></td>
</tr>
</tbody>
</table>
Lesson 8: Understand the need to use the same units when comparing measurements with others.

1. Did you remember to add the name of the length unit after the number?  
   Yes  No

2. Pick 3 items from the chart. List your items from longest to shortest:
   a. ________________________________
   b. ________________________________
   c. ________________________________

<table>
<thead>
<tr>
<th>Home Object</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. stuffed animal</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td></td>
</tr>
</tbody>
</table>
Lesson 9: Answer compare with difference unknown problems about lengths of two different objects measured in centimeters.

Lesson 9 Problem Set

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?
1. Look at the picture below. How much **shorter** is Trophy A than Trophy B?

Trophy A is _____ units **shorter** than Trophy B.

2. Measure each object with centimeter cubes.

   - The red shovel is ____ ______.
   - The green shovel is ____ ______.

3. How much **longer** is the green shovel than the red shovel?

   The green shovel is _____ centimeters **longer** than the red shovel.
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.

4. Susan grew 15 centimeters, and Tyler grew 11 centimeters. How much more did Susan grow than Tyler?

5. Bob’s straw is 13 centimeters long. If Tom’s straw is 6 centimeters long, how much shorter is Tom’s straw than Bob’s straw?

6. A purple card is 8 centimeters long. A red card is 12 centimeters long. How much longer is the red card than the purple card?

7. Carl’s bean plant grew to be 9 centimeters tall. Dan’s bean plant grew to be 14 centimeters tall. How much taller is Dan’s plant than Carl’s plant?
A group of people were asked to say their favorite color. Organize the data using tally marks and answer the questions.

<table>
<thead>
<tr>
<th>Color</th>
<th>Tally Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>Blue</td>
<td></td>
</tr>
</tbody>
</table>

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.
Students were asked about their favorite ice cream flavor. Use the data below to answer the questions.

<table>
<thead>
<tr>
<th>Ice Cream Flavor</th>
<th>Tally Marks</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strawberry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cookie Dough</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Fill in the blanks in the table by writing the number of students who voted for each flavor.

2. How many students chose cookie dough as the flavor they like best? _____ students

3. What is the total number of students who like chocolate or strawberry the best? _____ students

4. Which flavor received the least amount of votes? __________________________

5. What is the total number of students who like cookie dough or chocolate the best? _____ students

6. Which two flavors were liked by a total of 7 students?
   __________________________ and __________________________

7. Write an addition sentence that shows how many students voted for their favorite ice cream flavor.

   __________________________________________
Students voted on what they like to read the most. Organize the data using tally marks, and then answer the questions.

<table>
<thead>
<tr>
<th>What Students Like to Read the Most</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comic Book</td>
<td></td>
</tr>
<tr>
<td>Magazine</td>
<td></td>
</tr>
<tr>
<td>Chapter Book</td>
<td></td>
</tr>
</tbody>
</table>

8. How many students like to read chapter books the most? ____ students

9. Which item received the least amount of votes? __________________

10. How many more students like to read chapter books than magazines? _____ students

11. What is the total number of students who like to read magazines or chapter books? _____ students

12. Which two items did a total of 9 students like to read? ___________________ and ___________________

13. Write an addition sentence that shows how many students voted.

__________________________________________________________________________
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?
---|---|---|---|---

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lesson 11: Collect, sort, and organize data, then ask and answer questions about the number of data points.
• 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?
Collect information about things you own. Use tally marks or numbers to organize the data in the chart below.

<table>
<thead>
<tr>
<th>How many pets do you have?</th>
<th>How many toothbrushes are in your home?</th>
<th>How many pillows are in your home?</th>
<th>How many jars of tomato sauce are in your home?</th>
<th>How many picture frames are in your home?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Complete the question sentence frames to ask questions about your data.
- Answer your own questions.

1. How many ____________ do you have? (Pick the item you have the most of.)

2. How many ____________ do you have? (Pick the item you have the least of.)

3. Together, how many picture frames and pillows do you have?

4. Write and answer two more questions using the data you collected.

a. ____________________________________________________________?

b. ____________________________________________________________?
Students voted on their favorite type of museum to visit. Each student could only vote once. Answer the questions based on the data in the table.

<table>
<thead>
<tr>
<th>Museum Type</th>
<th>Number of Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Museum</td>
<td>8</td>
</tr>
<tr>
<td>Art Museum</td>
<td>12</td>
</tr>
<tr>
<td>History Museum</td>
<td>7</td>
</tr>
</tbody>
</table>

5. How many students chose art museums? _______ students

6. How many students chose the art museum or the science museum?
   _______ students

7. From this data, can you tell how many students are in this class? Explain your thinking.
Use squares with no gaps or overlaps to organize the data from the picture. Line up your squares carefully.

### Favorite Ice Cream Flavor

<table>
<thead>
<tr>
<th>Flavors</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>vanilla</td>
<td></td>
</tr>
<tr>
<td>chocolate</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Types of Shoe Ties</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>velcro</td>
<td></td>
</tr>
<tr>
<td>laces</td>
<td></td>
</tr>
<tr>
<td>no ties</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Favorite Pet</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>dog</td>
<td></td>
</tr>
<tr>
<td>fish</td>
<td></td>
</tr>
<tr>
<td>cat</td>
<td></td>
</tr>
</tbody>
</table>

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
The class has 18 students. On Friday, 9 students wore sneakers, 6 students wore sandals, and 3 students wore boots. Use squares with no gaps or overlaps to organize the data. Line up your squares carefully.

1. How many more students wore sneakers than sandals? _____ students

2. Write a number sentence to tell how many students were asked about their shoes on Friday.

3. Write a number sentence to show how many fewer students wore boots than sneakers.

---

Lesson 12: Ask and answer varied word problem types about a data set with three categories.
Our school garden has been growing for two months. The table below shows the numbers of each vegetable that have been harvested so far.

### Vegetables Harvested

<table>
<thead>
<tr>
<th></th>
<th>beets</th>
<th>carrots</th>
<th>corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Vegetables</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. How many total vegetables were harvested?  
   _____ vegetables

5. Which vegetable has been harvested the most?  
   ______________________

6. How many more beets were harvested than corn?  
   _____ more beets than corn

7. How many more beets would need to be harvested to have the same amount as the number of carrots harvested?  
   ____________________________________
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

<table>
<thead>
<tr>
<th>Sunny</th>
<th>Rainy</th>
<th>Cloudy</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Sunny" /></td>
<td><img src="image2" alt="Rainy" /></td>
<td><img src="image3" alt="Cloudy" /></td>
</tr>
</tbody>
</table>

1. How many more day(s) were cloudy than sunny?
   
   ____ more day(s) were cloudy than sunny. ________________

2. How many fewer days were cloudy than rainy?
   
   ____ more day(s) were cloudy than rainy. ________________

3. How many more days were rainy than sunny?
   
   ____ more day(s) were rainy than sunny. ________________

4. How many total days did the class keep track of the weather?
   
   ____ total days

5. 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.

<table>
<thead>
<tr>
<th>Favorite Fruit</th>
<th>🍎 = 1 student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td></td>
</tr>
<tr>
<td>🍎</td>
<td>🍇</td>
</tr>
</tbody>
</table>

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

**School Lunch Order**  

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>hot lunch</td>
<td>sandwich</td>
<td>salad</td>
</tr>
<tr>
<td><img src="image1.png" alt="hot lunch Icon" /></td>
<td><img src="image2.png" alt="sandwich Icon" /></td>
<td><img src="image3.png" alt="salad Icon" /></td>
</tr>
</tbody>
</table>

1. How many more hot lunch orders were there than sandwich orders?  
   _____ more hot lunch orders  

2. How many fewer salad orders were there than hot lunch orders?  
   _____ fewer salad orders  

3. If 5 more students order hot lunch, how many hot lunch orders will there be?  
   _____ hot lunch orders
Use the table to answer the questions. Fill in the blanks, and write a number sentence.

<table>
<thead>
<tr>
<th>Favorite Type of Book</th>
<th>( _ _ _ _ = 5 \text{ students} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>fairy tales</td>
<td>( _ _ _ _ \</td>
</tr>
<tr>
<td>science books</td>
<td>( _ _ _ _ _ )</td>
</tr>
<tr>
<td>poetry books</td>
<td>( _ _ _ _ _ _ _ _ _ )</td>
</tr>
</tbody>
</table>

4. How many more students like fairy tales than science books?
   \( \_ \_ \_ \_ \) more students

5. How many fewer students like science books than poetry books?
   \( \_ \_ \_ \_ \_ \) fewer students

6. How many students picked fairy tales or science books in all?
   \( \_ \_ \_ \_ \_ \) students

7. How many more students would need to pick science books to have the same number of books as fairy tales?
   \( \_ \_ \_ \_ \_ \_) students

8. If 5 more students show up late and all pick fairy tales, will this be the most popular book? Use a number sentence to show your answer.