

Super-Journal Week 4:4

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer one of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction). The Super-Journal is due on the first day after the weekend (usually Monday). This will be due the Monday we get back from Spring Break.

FICTION

1. You will be making 7 whole page illustrations based off of 7 separate quotes from your reading. Each illustration should take an entire page and be colorful. *Make sure that you write the quote, and the page number you got your quote from at the bottom of each colorful illustration in order to receive credit for your work.*

NONFICTION

1. What is this text about?
2. Summarize the main ideas in 5 sentences.

RL.3.7/RI.1.2

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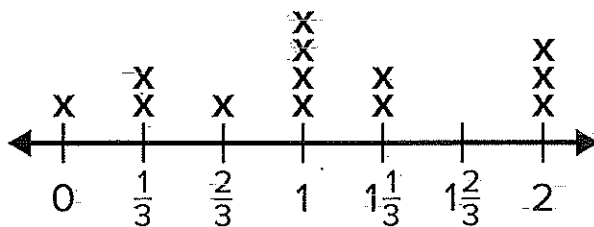
Represent Numerical Data

Name _____

Review

Line plots show data as a mark above a value on a number line.

**Cups of Flour Required
—in a Recipe**



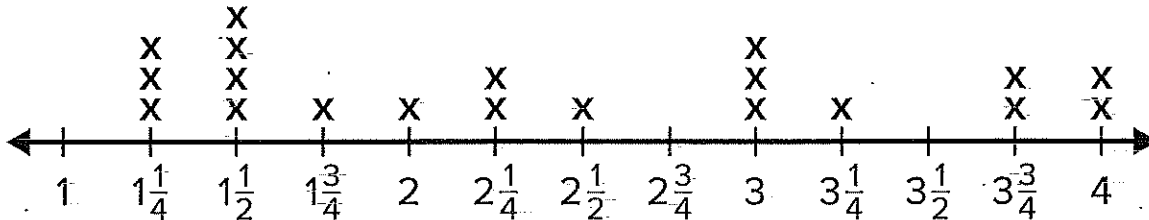
There are 13 Xs, so there are 13 recipes represented.

The most commonly used measure of flour is 1 cup.

1 of the recipes calls for 0 cups.

3 of the recipes call for 2 cups.

This line plot shows the hours a week spent reading by a group of students. Use the line plot to answer the questions.



- How many students are represented on the line plot?
- What is the longest time spent reading per week?
- How many students read more than 3 hours?
- What is the shortest time spent reading per week?
- What is the most common time spent reading?
- How many students read for $3\frac{1}{2}$ hours?

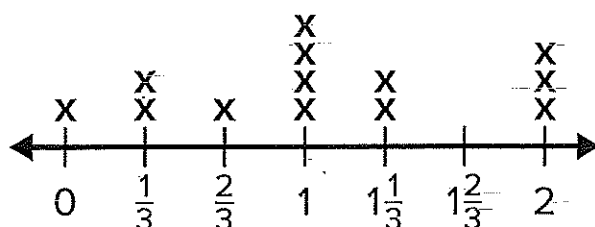
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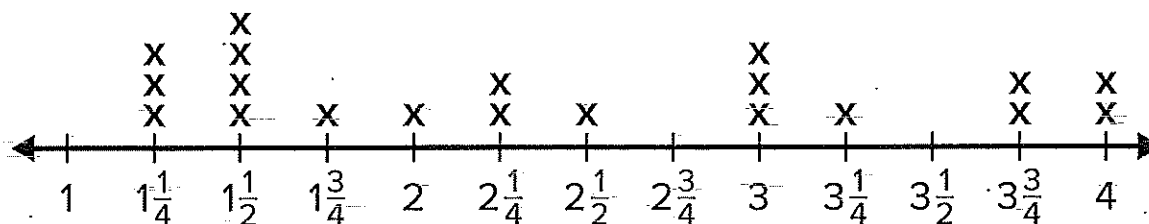
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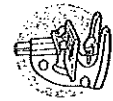
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Science Standard: Understands how species depend on one another and on the environment for survival

Benchmark: Knows that changes in the environment can have different effects on different organisms

Changing with the Environment

Every plant and animal is designed to live in a specific environment, or biome. A cactus would die in a swamp, just as a cattail would die in a desert. These plants are meant to live in different biomes. The cattails grow in the swamp because they need standing water. The cactus likes the high heat and little rainfall of a desert. It stores water inside itself.

Sometimes the environment changes. Then the plants and animals that are suited only to a specific place are suddenly in trouble. They must change in order to survive. Many people believe that a change in environment explains what happened to the dinosaurs. The theory states that a meteor struck Earth millions of years ago and caused a climate change. The world immediately got a lot colder. The cold-blooded dinosaurs needed more heat. They ate the kinds of plants that grew in warm places. The change was too sudden. The dinosaurs couldn't adapt. They all died out.

For the dinosaurs all we have is a theory. Now we have seen other plants and animals die out when the environment changes. Some species can adapt, or change, quickly in response to changes humans make to their environment. One example happened in Britain with the peppered moth. During the early 1800s most peppered moths were white with black spots. Only a few odd ones were black. The white moths blended in with tree trunks. The black ones could easily be seen. Since the birds usually ate them, they did not get to reproduce. The population of white peppered moths stayed large; the population of black peppered moths stayed very small. Then in the mid 1800s people built a lot of factories. The factories' smokestacks sent lots of ashes into the air. These ashes darkened the bark on the trees where the moths lived. Now the white moths no longer blended in with the tree trunks. As a result, the birds saw and ate them. They did not get to reproduce. The number of white peppered moths dwindled. More and more black peppered moths survived. Today, most peppered moths in Britain are black.

Unfortunately, most plants and animals cannot adapt so quickly. Many species have become extinct. More die off each day. This is especially true in rainforests, where creatures rarely adapt to a change in their environments.

Changing with the Environment

Comprehension Questions

- The dinosaurs may have died because of
 - a lack of medicine.
 - a climate change.
 - a biome.
 - a theory.
- On a historical time line, what happened second?
 - Most peppered moths were black.
 - Most peppered moths were white.
 - Factories were built in Britain.
 - The peppered moth population started to change.
- Which is an example of people making a big change to a biome?
 - growing a crop
 - filling in a swamp.
 - opening a beach
 - repairing a road
- A synonym for *dwindled* is
 - darkened.
 - lightened.
 - increased.
 - decreased.
- Which is a biome?
 - the temperature
 - the sky
 - the ocean
 - the sun
- Picture a bird searching for peppered moths. Where is it looking?
 - on tree trunks
 - in the grass
 - under the dirt
 - high in the sky
- What environmental change do you think would be the easiest for an animal to adapt to: temperature, length of seasons, amount of water available, or kinds of food available? Explain.

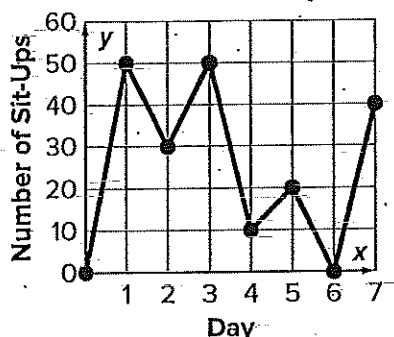
Solve Problems Involving Numerical Data

Name _____

Review

You can use information given in line graphs to solve problems.

Jamal's Sit-Ups



For example, you can find how many more sit-ups Jamal did on day 3 than on day 4.

$$50 - 10 = 40$$

Jamal did 40 more sit-ups on day 3 than day 4.

The line graph shows how the speed of an amusement park race car changed over time. Use the line graph to answer the questions.

- How does the speed of the car change throughout the ride?

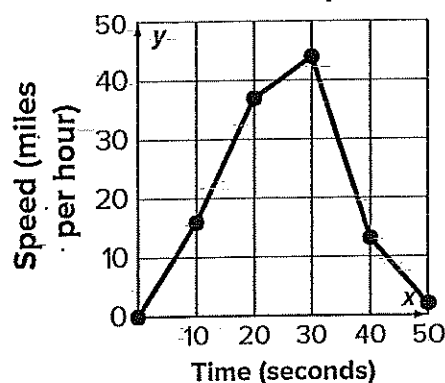
- What is the fastest the car ever went?

- What happens to the car's speed between 10 and 20 seconds?

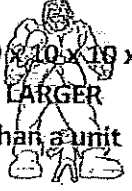
- After what time does the car slow down? _____

- Do you think that the ride ended at 50 seconds? Explain.

Race Car Speed



Metric Conversion

K ing	H enry	D ied	U nusually 	D rinking	C hocolate	M ilk
Kilo  10 x 10 x 10 x LARGER than a unit 1 kilo = 1,000 units	Hecto 10 x 10 x LARGER than a unit 1 hecto = 100 units	Deca 10 x LARGER than a unit 1 deca = 10 units	* Unit * Meter (length) Liter (liquid volume) Gram (mass/weight) 1 unit	Deci 10 x SMALLER than a unit 10 deci = 1 unit	Centi 10 x 10 x SMALLER than a unit 100 centi = 1 unit	Milli 10 x 10 x 10 x SMALLER than a unit  1,000 milli = 1 unit
km = kilometer kL = kiloliter kg = kilogram	hm = hectometer hL = hectoliter hg = hectogram	dam = decameter daL = decaliter dag = decagram	m = meter L = liter g = gram	dm = decimeter dL = deciliter dg = decigram	cm = centimeter cL = centiliter cg = centigram	mm = millimeter mL = milliliter mg = milligram

Measurement Conversion Chart

LENGTH	
Metric 1 kilometer = 1,000 meters 1 meter = 100 centimeters 1 meter = 1,000 millimeters 1 centimeter = 10 millimeters	Customary 1 mile = 5,280 feet 1 mile = 1,760 yards 1 yard = 3 feet 1 foot = 12 inches
CAPACITY	
Metric 1 liter = 1,000 milliliters	Customary 1 gallon = 4 quarts 1 quart = 2 pints 1 pint = 2 cups 1 cup = 8 fluid ounces
MASS AND WEIGHT	
Metric 1 kilogram = 1,000 grams 1 gram = 1,000 milligrams	Customary 1 ton = 2,000 pounds 1 pound = 16 ounces
TIME	
1 year = 365 days 1 year = 52 weeks 1 year = 12 months 1 week = 7 days 1 day = 24 hours 1 hour = 60 minutes 1 minute = 60 seconds	

Geography Standard: Understands the characteristics of ecosystems on Earth's surface
Benchmark: Knows the components of ecosystems and how human intervention can change them



Staying in Balance

An ecosystem is a community of plants and animals. They interact with each other and their environment. Since ecosystems are based on food chains, an ecosystem must stay in balance. This means that the number of plants and animals stay pretty much the same. Why? Well, if there are too many plant consumers, they will ruin the plant population by eating the plants faster than the plants can grow back. If there are too many animal consumers, they will run out of food.

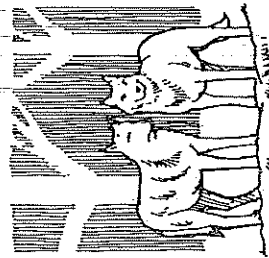
Suppose a disease killed a lot of birds. The dead birds fall to the ground and rot. Bacteria feed on the dead birds until the number of bacteria is too large. Too many bacteria in the soil cause plants to die. Then mice (plant consumers) can't find enough food. They leave the area or starve. Now the snakes (animal consumers) that are the mice are left without food. They too must leave the area or starve. The ecosystem's imbalance ruined the community.

Unfortunately, people often do things that disrupt the balance of ecosystems. People build houses and roads on land that animals need for homes. They fill in wetlands. They pollute the air, land, and water. Some animals have been hunted almost to extinction.

If humans do not interfere, ecosystems will eventually rebalance on their own. This takes many years. What happened on Isle Royale in Lake Superior is a good example. In the 1920s a pair of moose swam out to Isle Royale. They were the only large animals there, so by 1930 their population had grown to 3,000!

That many moose ate the plants faster than the plants could grow back. In 1933 the moose began to starve. As they died, their numbers dropped. With fewer moose, the plants grew back. Over time the moose population grew again.

In 1950 a pair of wolves swam out to the island. They ate the moose, and the number of wolves increased. When there got to be too many wolves, they started to starve. After many years a stable balance of 600 moose and 20 wolves lived on Isle Royale. There were just enough moose and just enough wolves to keep them both from starving.



Staying in Balance

Comprehension Questions

1. In what year did the moose start to die?
 (a) 1920 (c) 1933
 (b) 1930 (d) 1950
2. On a historical time line, what happened third?
 (a) Moose came to Isle Royale.
 (b) Wolves came to Isle Royale.
 (c) The moose didn't find enough to eat.
 (d) The wolves didn't have enough to eat.
3. Which human activity would have the biggest effect on an ecosystem?
 (a) paddling a canoe (c) flying a plane
 (b) building a campfire (d) building a road in a jungle
4. *Imbalance* means
 (a) perfection. (c) disharmony.
 (b) size. (d) dirtiness.
5. What could happen if Isle Royale had 400 moose and 25 wolves?
 (a) The number of wolves would increase. (c) The number of moose would increase.
 (b) The moose would eat too many plants. (d) The wolves would begin to starve.
6. Picture a place with so many deer that they are starving. To rebalance the ecosystem, people may
 (a) try to scare the deer away.
 (b) allow deer hunting.
 (c) put out food for the starving deer.
 (d) pass laws to protect deers from hunters.
7. Would making a new landfill affect the ecosystem of that area? Explain.

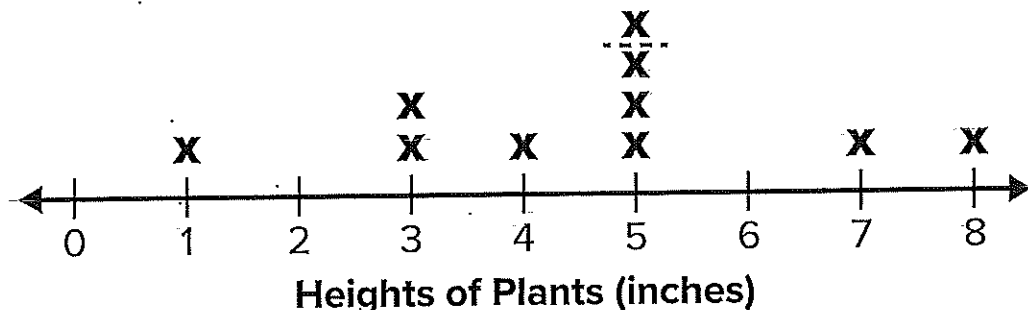
Determine Mode, Median, and Range of a Data Set

Name _____

Review

Example

The data shows the heights, in inches, of Chiara's sprouting plants. What is the mode, median, and range of the data?



mode: the value with the greatest number of data points.

The mode is 5.

median: the middle data value

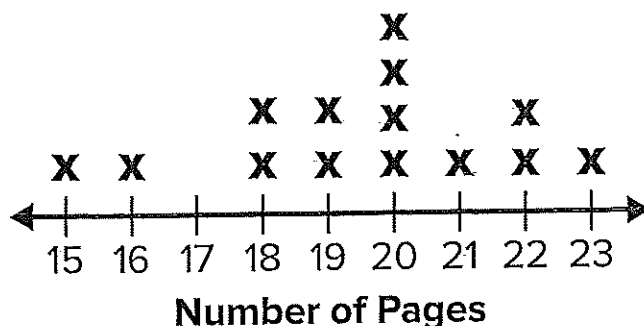
The median is 5.

range: the difference between the greatest and least data values.

The range is 7.

How can you find the mode, median, and range of the data?

1. The line plot shows the number of pages that students in Ms. Green's class read in their novel last night. What is the mode, median, and range of the data?



mode: _____

median: _____

range: _____

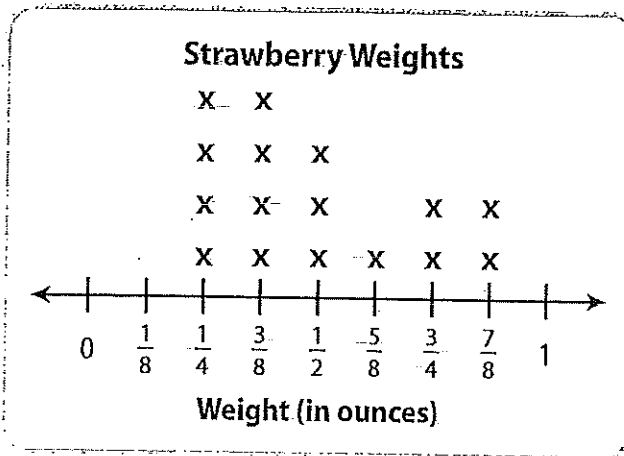
**Solving Problems Using
Data in a Line Plot**

Name: _____

27°

Answer the questions about each line plot.

Sheila weighs some strawberries of different sizes. She weighs each strawberry to the nearest $\frac{1}{8}$ ounce. The results are shown in the line plot below.



- 1** What is the difference between the weights of the heaviest and lightest strawberries? _____
- 2** What is the total weight of the strawberries that weigh $\frac{3}{4}$ ounce or more? _____
- 3** What is the total weight of the strawberries that weigh less than $\frac{1}{2}$ ounce? _____
- 4** What is the difference in weight between all the strawberries that weigh $\frac{7}{8}$ ounce and all the strawberries that weigh $\frac{1}{2}$ ounce? _____