

**Incoming 5th Grade
Science Summer Homework 2018**

Dear Students and Parents,

I am so excited to have your student in my science class next year! Attached are three assignments for summer. **They need to choose one assignment to complete.** My hope is that these assignments help them continue to “do science” over the summer while practicing their reading and writing skills.

I have included rubrics for each assignment - each assignment is worth 20 points and the rubrics will help your student focus on the key pieces I would like to see from each activity. Students can also self-evaluate using the rubric. Each assignment can be submitted electronically or on paper. Please be sure to include your name on your submissions.

Please feel free to e-mail me with any questions at cousley@stleonardlouisville.org.

Thank you! Enjoy Doing Science!

Mrs. Ousley

Incoming 5th Grade: Choose **ONE** of the following activities below. Rubrics are provided to help you evaluate your progress.

1. Practice your observation skills: Plant a seed or young plant. Track its growth for 2 weeks by keeping a journal. Make sure to note what kind of plant you planted and what you know about it! Write and draw your observations and take measurements of its growth. At the end of 2 weeks, write a conclusion where you examine what you might have done to help that plant grow better. Journal can be kept on paper or electronically.

Journal Entries - Complete	4 pts - Journal includes entries for each day of the 2 week experiment
Journal Entries - Detailed	4 pts - Journal entries are appropriately detailed and indicate changes that occur from day to day. Details included might be leaf shape, height, amount of water received, etc. May also include the weather (especially if plants are not growing!) Students write/draw exactly what they see.
Journal Entries - Measurements	4 pts - 4 or more measurements are taken of the plant
Conclusion - Complete	4 pts - Five or more sentence conclusion; student not only summarizes their observations but also details what they would change to make their plant grow better.

Total: 20 points

2. Practice your engineering skills: Find something in your house that is broken, doesn't work right or is going to be thrown away (it could be a toy, a piece of furniture, a part of a container, whatever!). With an adult's permission, figure out how you could fix this item OR repurpose it into something useful. Then, go ahead and see if you can fix it (if possible)! Write and draw a design plan, take photos of your process and caption those photos! Then write a conclusion telling the reader about the success of your project.

Design Process	4 pts - Students pick a challenging but appropriate project to embark on.
Design Plan	4 pts - Students have a drawn and labeled plan of their design project, including a list of materials needed.
Photos	4 pts - Students take at least 4 photos showing them working on the project.
Conclusion - Complete	4 pts - Five or more sentence conclusion, student summarizes their work and tells about the success (or failure!) of their project.
Conclusion - Grammar/Punctuation	4 pts - Conclusion is nearly free of grammatical errors.

Total: 20 points

3. Practice your research skills: Read a nonfiction book on a scientific subject (at or above your reading level). Your book could be about an animal, plants, disease, anything! Once you have finished reading, pick out the 5 most important details from your book, write them down and explain why they are the most important.

Book Choice	3 pts - Students pick a challenging but appropriate book on a scientific subject.
Details	5 pts - Students successfully pull 5 important details from their book. The details are appropriate and key to understanding the subject of the book.
Reasoning of Details	7 pts - Students are able to explain in 3 or more sentences why each detail is important.
Report - Grammar/Punctuation	5 pts - Report is nearly free of grammatical errors.

Total: 20 points

Incoming 5th and 6th Graders

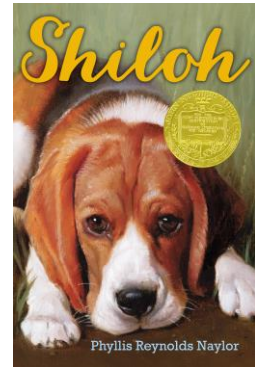
Language Arts Summer Work 2018

Hello parents and students,

Here are the books assigned for incoming fifth and sixth graders for summer Language Arts reading. Hope you like them.

5th Grade

This summer, the only reading assignment I have for incoming fifth graders is to read the book *Shiloh* by Phyllis Reynolds Naylor. Some of them might have already read it, but that is okay. After reading it, please complete the brief Summer Reading Notes document. Over the first week or so of class, we will review it together. After that, we will have a vocabulary test over it.

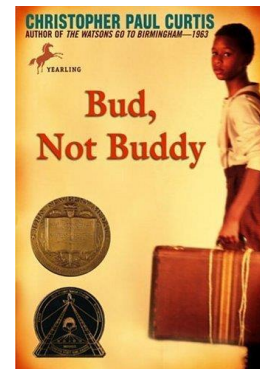


During fifth grade, I like to start to get the kids to not only read for comprehension, which is obviously very important, but to also read critically and look at the theme and even how it is written (say, first person vs. third person). So, if your son or daughter wants to wait until later in the summer to read so they can retain it better, that seems fine as well. I really hope they just can start to enjoy reading (if they do not already).

Please let me know if you have any questions. I found a copy of the novel at Half Price Books for \$2.99, so you should be able to find it easily and inexpensively.

6th Grade

Our Language Arts reading for the summer will be a novel *Bud, Not Buddy* by Christopher Paul Curtis. After reading it, please complete the brief Summer Reading Notes document. You can find copies of the novel on Amazon, at the library, and at most bookstores, including Half Price Books.



We will discuss its plot and themes over the first days of school and have a vocabulary test soon after. If your son or daughter wants to wait until later in the summer to read it, don't be too alarmed. That might help them retain the story better.

Feel free to email me with any questions at kzedelmeier@stleonardlouisville.org. Thanks and have a good summer.

Kevin Sedelmeier

5th Grade Homeroom

5th-6th grade Language Arts and Social Studies

St. Leonard School

SUMMER HOMEWORK FOR 5th GRADE 2018-2019

Math

Researchers say that over the summer students can drop one half to a whole grade level below where they were at the end of the school year! This packet will help you prepare for the content and the different types of problems to be ready for the next school year. Please bring your packet to school in August, as we will spend a few days going over it in class.

Students are highly recommended to spend 1 hour per week on Dreambox (online math program that is used in the classroom where students guide the instruction as it meets their needs). Students can access Dreambox by going to the St. Leonard Homepage: <http://protopage.com/stleonard/#Home>, under Important Links selecting Student Clever Login. From here students can login to Dreambox.

Please feel free to email me with any questions at eharrison@stleonardlouisville.org.

Thank you and have a restful break!

Data from Surveys

To take a survey, you ask different people the same question and record their answers. Heather asked her class, "What is your favorite flavor of frozen yogurt?" Here are her results.

Favorite Flavor of Frozen Yogurt

Vanilla	////	4
Chocolate	### ////	9
Strawberry	///	3
Orange	/	1

We can see that Heather's classmates liked chocolate frozen yogurt the best.

Favorite Winter Olympic Sports

Bobsledding	### ///	8
Curling	//	2
Ice hockey	### ###	10
Speed skating	///	3

- How many people in the survey liked bobsledding the best? _____
- How many people were surveyed? _____
- According to the data, which sport is the favorite of most people? _____
- Number Sense** If five times as many people were surveyed, how many do you think would say they liked curling best? Explain.

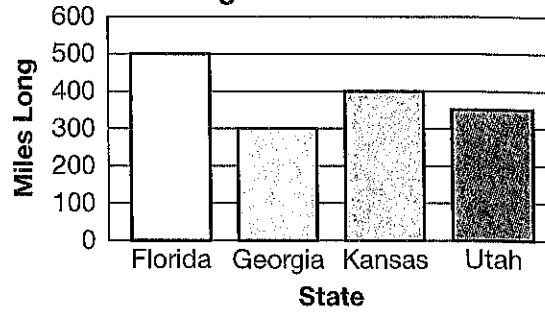
Interpreting Graphs

Bar graphs help us compare data.

Data File

Lengths of U.S. States	
State	Length
Florida	500 mi
Georgia	300 mi
Kansas	400 mi
Utah	350 mi

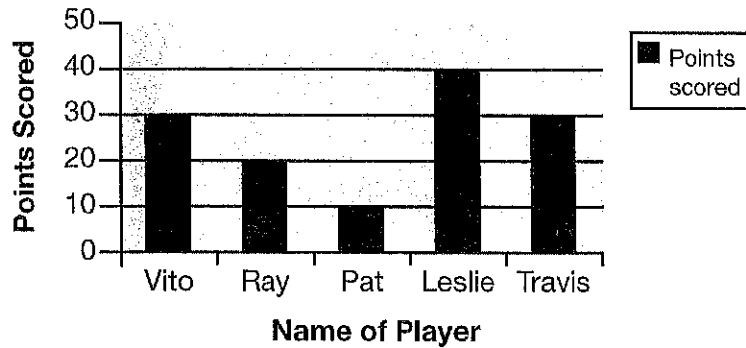
Lengths of U.S. States



The bar graph shows the information from the table in another way.

Use the bar graph below.

Game Results



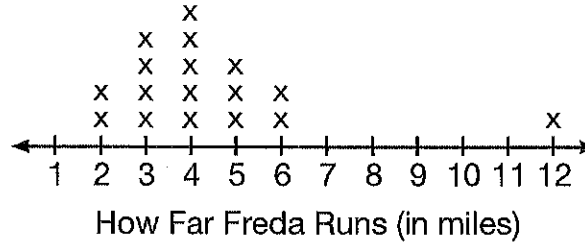
- How many points did Pat score? _____
- Who scored more points, Leslie or Travis? _____
- Which player scored 20 points? _____
- Which two players scored the same amount of points? _____

Reteaching 17-2

Line Plots

The table below gives the number of miles Freda ran over a period of days. A line plot shows data along a number line. Each X represents one number in the data set.

Miles Run	Days
2	2
3	4
4	5
5	3
6	2
12	1

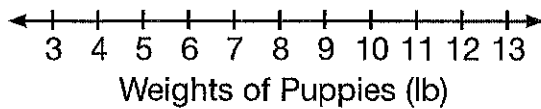


On the line plot each X represents 1 day. An outlier is a number in a data set that is very different from the rest of the numbers.

1. Is there an outlier in the data set above? Explain.

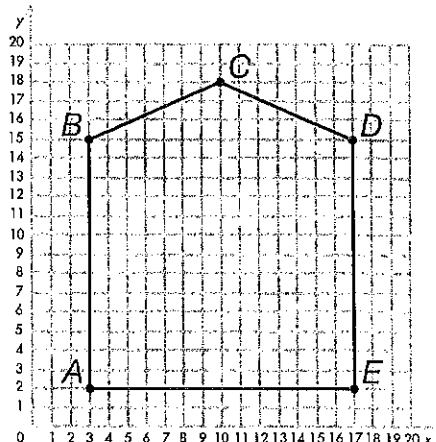
2. Complete the line plot to show the data in the table for puppies' weights at birth. Identify the outlier in the data set.

Weight (lb)	Number of Puppies
3	5
4	3
5	2
6	0
7	1
13	1



Ordered Pairs

A coordinate grid has a horizontal **x-axis** and a vertical **y-axis** that meet at 0. To read a grid, use **ordered pairs** of numbers. You can find the lettered points of the house on the grid by reading the ordered pairs. Start at 0. Move right 3 units. This gives you the first number, or **x-coordinate**. Then move up 2 units. This gives you the second number, or **y-coordinate**, in the ordered pair. The ordered pair for point **A** is (3, 2).



Point	You Move
A (3, 2)	3 → 2 ↑
B (3, 15)	3 → 15 ↑
C (10, 18)	10 → 18 ↑
D (17, 15)	17 → 15 ↑
E (17, 2)	17 → 2 ↑

When you **plot** a point on a grid, you are graphing it by using the ordered pair for that point. Find each point on the grid and write the correct letter for it on the grid. Then connect the points in the order you found them.

Use the graph above for Exercises 1 through 7.

- Find the ordered pair (8, 2) and mark it with a dot.
- Find the ordered pair (12, 2) and mark it with a dot.
- Find the ordered pairs (8, 10) and (12, 10) and mark them with dots.
- Connect the dots. You have drawn a _____.
- Find the ordered pairs (4, 5) and (7, 5) and mark them with dots.
- Find the ordered pairs (4, 10) and (7, 10) and mark them with dots.
- Connect the points you drew in Exercises 5 and 6. You have drawn a _____.

Line Graphs

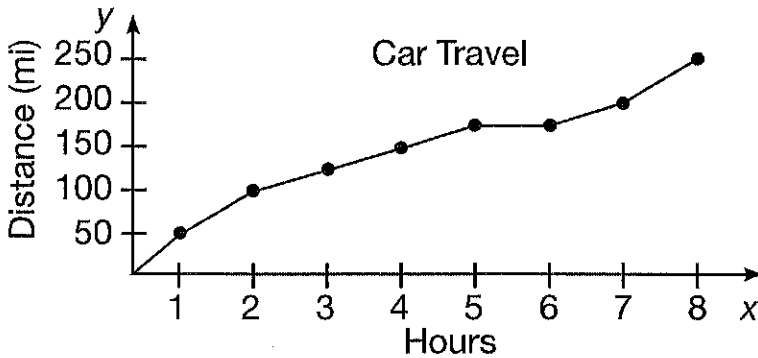
A **line graph** is used to see changes in data over time.

On a line graph, points that are plotted on the graph are connected to form a line segment between two points next to each other.

When the line goes up from left to right, that shows an **increase** in the data, and when the line goes down that indicates a **decrease**.

The increase and decrease represents the **trend** in the data.

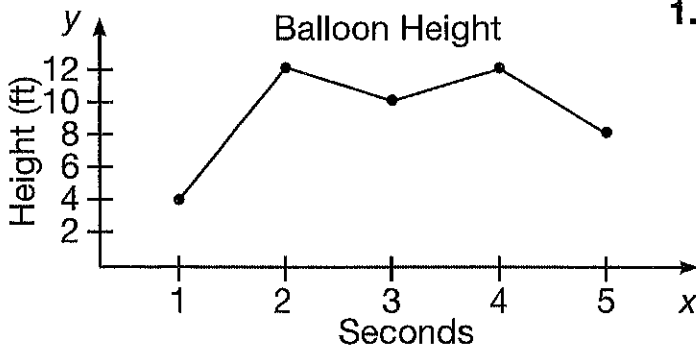
For example, look at the graph below:



How far did the car travel between hours 5 and 8?

The distance at 8 hours is 250 miles. The distance at 5 hours is 175 miles. The distance between the two times is 75 miles.

For the following problems use the graph below:



1. What is the overall change in y between $x = 1$ and $x = 5$?

2. What is the trend between $x = 4$ and $x = 5$? _____

3. Between which two x values is the biggest increase in y ?

Mean

The mean of a set of numbers is the average. You can find the mean of 3, 8, and 7 by adding those three numbers together and then dividing the total by 3.

First, add the three numbers: $3 + 8 + 7 = 18$

Next, divide the total by 3: $18 \div 3 = 6$

The mean of 3, 8, and 7 is 6.

Find the mean.

There are 6 bags of groceries, each with a different number of items.

Bag 1	Bag 2	Bag 3	Bag 4	Bag 5	Bag 6
3 items	9 items	7 items	4 items	8 items	5 items

To find the mean, add the number of items in each bag.

$$3 + 9 + 7 + 4 + 8 + 5 = 36 \text{ items}$$

There were 6 numbers in total, so divide 36 by 6 to find the mean.

$$36 \div 6 = 6 \quad \text{The average number of items per bag is 6.}$$

Find the mean of each group of numbers.

1. 8, 5, 8 _____

2. 22, 33, 44 _____

3. 1, 6, 9, 4 _____

4. 41, 15, 37 _____

5. 8, 13, 90, 17 _____

6. 123, 54, 41, 6 _____

7. **Number Sense** The mean of 26, 26, and 26 is 26. The mean of 25, 26, and 27 is also 26. Find another set of numbers that has the mean of 26.

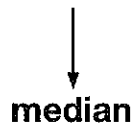
Median, Mode, and Range

Travelers at an airport were given a survey asking how many trips they take per year.

Trip Survey	
Number of Yearly Trips	Number of Travelers
1	///
2	////
3	### //
4	///

The **mode** is the number that occurs most often. To find the mode, look for the number that has the most tally marks. The mode is 3 for this data. If all numbers have the same number of tally marks there is no mode. The **median** is the middle number of the data listed in order.

1 1 1 2 2 2 2 3 3 3 3 3 3 3 4 4 4



The **range** is the difference between the greatest number and the least number: $4 - 1 = 3$. The range = 3 for this data.

1. How many travelers at the airport were surveyed? _____

2. A survey was taken at the park. Children were asked how many times they had visited the park this year. Find the range, mode, and median of the data to the right.

Trips to the Park	
Number of Visits	Number of Visitors
3	###
4	///
5	### //
6	### /

3. Find the range, mode, and median of the data set below.
21, 23, 19, 19, 21, 23, 19, 19, 21, 24, 21, 19, 24

Stem-and-Leaf Plots

Given a list of numbers, a **stem-and-leaf plot** can be created. The stem is the highest place value of the numbers and the leaves are the lower place values of the number.

A stem-and-leaf plot also makes it easier to calculate median, mode, and range.

Remember to choose for the stem the place value which best helps you organize the data.

For Example:

Ivan's history quiz scores were 88, 92, 99, 91, 77, 85, 89, 96, 90, 87, 91, 84, and 88. A stem-and-leaf plot of his scores is a good way to find the median.

Stem	Leaf
7	7
8	4, 5, 7, 8, 8, 9
9	0, 1, 1, 2, 6, 9

The median of all the numbers: 89

Stem	Leaf
1	2
2	2, 2, 7, 7, 7
3	1, 2, 4

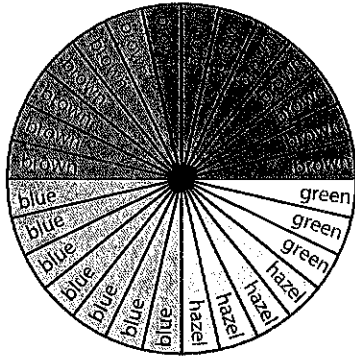
1. What do the stems represent? _____
2. What do the leaves represent? _____
3. What numbers are shown in the stem-and-leaf plot?

4. What is the median, mode, and range of the numbers in the stem-and-leaf plot?

Reading Circle Graphs

Circle graphs visually demonstrate which fraction of the data samples correspond to each value.

Remember, the number of sections to divide the circle into is equal to the total number of data samples.

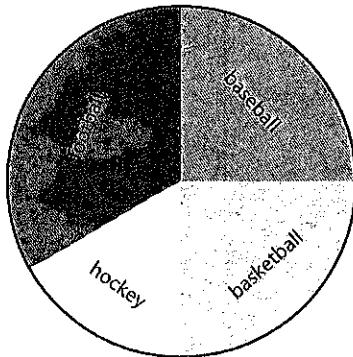


Eye Color

What approximate fraction of the population has hazel eyes?

From the graph, 4 out of 28, or $\frac{1}{7}$ of the population, have hazel eyes.

Use the circle graph below to answer Exercises 1 through 3.



Favorite Sport

1. What fraction of the population has either baseball or basketball as a favorite sport? _____
2. What fraction of the population does **NOT** consider football as a favorite sport? _____
3. What fraction of the population does **NOT** consider baseball a favorite sport? _____

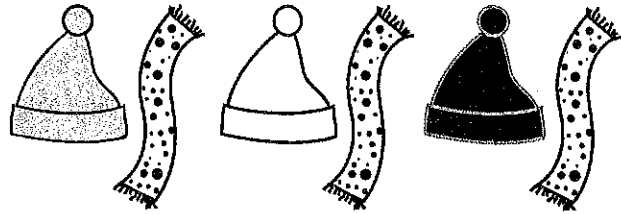
Reteaching 17-9

Finding Combinations

You can organize pictures to help you find possible combinations.

Scarves	Hats
Striped	Black
Polka dot	White
	Gray

Then draw all the combinations of hats with a polka dot scarf.



First draw all the combination of hats with a striped scarf.



Now count how many pictures you drew. There are 6 possible combinations.

Show the possible combinations by filling in the table.

1.

Letter	A	B	C
Number	1	2	3

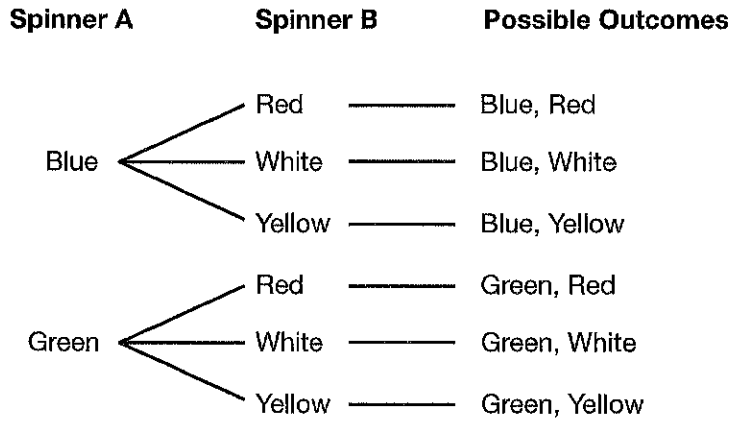
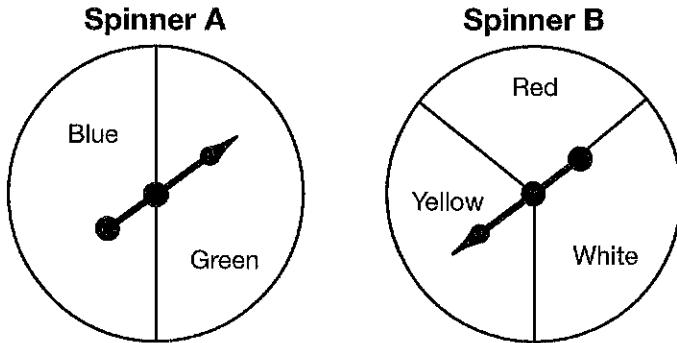
A, ____	B, ____	____, 1
____, 2	B, ____	C, ____
A, ____	____, 3	C, ____

Find the number of possible combinations by drawing organized pictures.

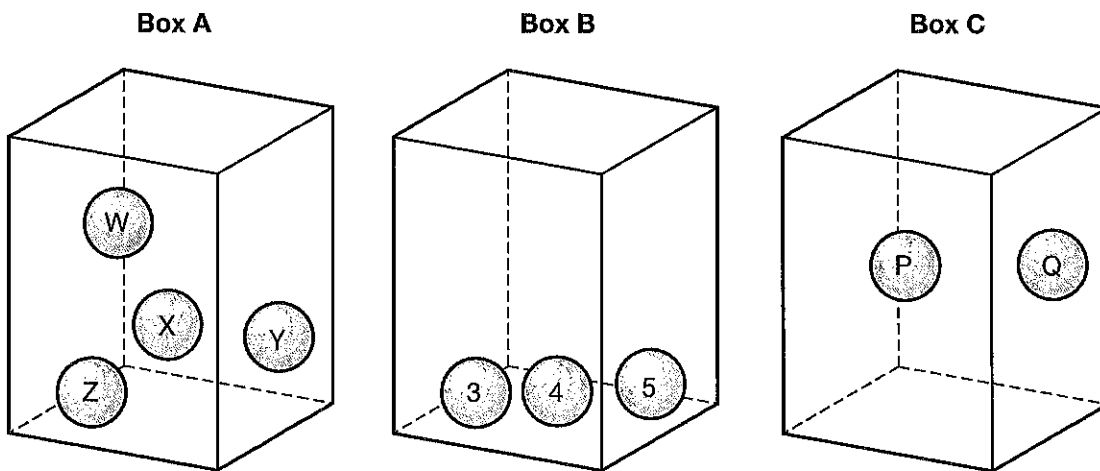
1. 3 dishes and 2 bowls _____
2. 2 pants and 4 shirts _____
3. 5 paints and 1 wall _____
4. 2 cheeses and 3 crackers _____
5. 4 teas and 4 biscuits _____
6. 3 cups and 5 juices _____

Outcomes and Tree Diagrams

List all the possible outcomes for the spinners shown.



List all the possible outcomes for selecting a marble from each box, without looking.



1. Box A _____
2. Boxes B and C _____

Reteaching 20-2

Writing Probability as a Fraction

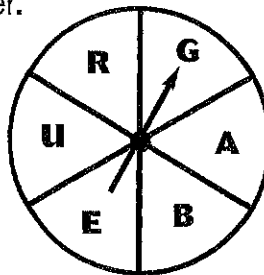
You can spin a consonant or a vowel on this spinner.

What is the probability of spinning a consonant?

The spinner has 6 equal sections.

So, the total number of possible outcomes is 6.

There are 3 ways to spin a consonant: **R, B, G**.



The probability of spinning

a consonant is $\frac{\text{number of ways to spin a consonant}}{\text{total number of outcomes}} \rightarrow \frac{3}{6}$

So, the probability is $\frac{3}{6} = \frac{1}{2}$,
or 1 out of 2.

An impossible event has a probability of 0.

A certain event has a probability of 1.

Any other event has a probability between 0 and 1.

Use the spinner above to answer Exercises 1 through 3.

1. What is the probability of spinning **B**? _____
2. What is the probability of spinning **E**? _____
3. What is the probability of spinning a vowel? _____
4. A box of markers holds a variety of colors. The probability of selecting a red marker is $\frac{2}{19}$. There are two red markers. How many markers are in the box?



Solve each problem.

239

132

2

138

2

109

3

5

262

1

- 1) At the carnival, nine friends bought two hundred fourteen tickets. If they wanted to split all the tickets so each friend got the same amount, how many more tickets would they need to buy?
- 2) A clown needed two hundred seventy-five balloons for a party he was going to, but the balloons only came in packs of two. How many packs of balloons would he need to buy?
- 3) A vase can hold nine flowers. If a florist had eight hundred seventy-eight flowers she wanted to put equally into vases, how many flowers would be in the last vase that isn't full?
- 4) An industrial machine can make four hundred seventy-nine crayons a day. If each box of crayons has two crayons in it, how many full boxes does the machine make a day?



Solve each problem.

1,540

6,424

1,232

5,244

1,152

2,125

1,581

4,810

1,302

696

- 1) A pet store sold 74 puppies in one week. If each of the puppies cost 65 dollars, how much money would they have made?
- 2) A bouquet of flowers had 92 daisies in it. If a florist had 57 bouquets, how many daisies did they have total?
- 3) Carol has 31 albums of photos uploaded to facebook. If each album has 51 pics in it, how many pics does she have total?
- 4) There are 29 teams in the state trivia tournament. If each team has 24 players, how many players are there total?



Solve each problem.

25.119	92.636	58.7	64.09
160.841	3.342	39.824	62.978
56.69	60.8	74.84	12.25

1)
$$\begin{array}{r} 89.61 \\ -26.632 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 29 \\ +27.69 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 71 \\ -12.3 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 26 \\ +13.824 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 51 \\ -38.75 \\ \hline \end{array}$$

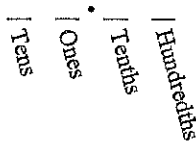
6)
$$\begin{array}{r} 54.7 \\ + 9.39 \\ \hline \end{array}$$



Converting Fractions to Decimals

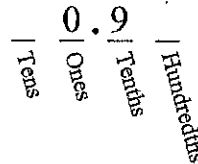
Convert each fraction to a decimal.

Converting from a fraction to a decimal is simple as long as you remember the place values.



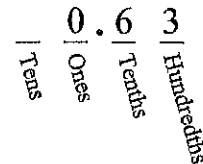
$\frac{9}{10}$

The example above is nine-tenths. Lets look at how we'd write that as a decimal.



$\frac{63}{100}$

We do the same thing for the problem above only make sure we're in the hundredths place.



Ex) $\frac{53}{100} = \underline{0.53}$

1) $\frac{5}{100} = \underline{\hspace{2cm}}$

2) $\frac{7}{10} = \underline{\hspace{2cm}}$

3) $\frac{55}{100} = \underline{\hspace{2cm}}$

4) $\frac{24}{100} = \underline{\hspace{2cm}}$

5) $\frac{92}{100} = \underline{\hspace{2cm}}$

6) $\frac{2}{100} = \underline{\hspace{2cm}}$

7) $\frac{66}{100} = \underline{\hspace{2cm}}$

8) $\frac{2}{10} = \underline{\hspace{2cm}}$