

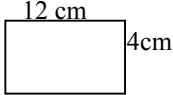

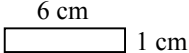
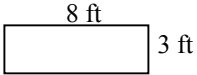

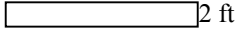
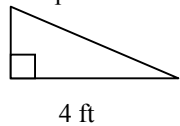
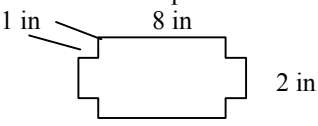
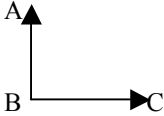
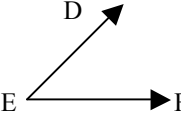
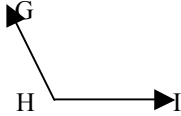
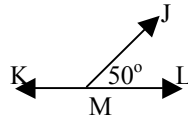
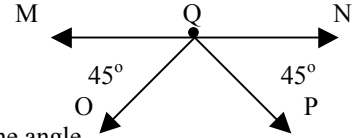
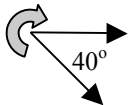
Each week will consist of 6 problems that review, maintain, and deepen the skills and concepts learned in 6 strands of mathematics: Operations & Computation; Numeration; Patterns, Functions & Algebra; Data & Chance; Measurement & Reference Frames; and Geometry. Each problem will consist of three levels: basic, moderate, and challenge/extension. Students are able to work in each strand at the appropriate level of difficulty. Most problems at the basic and moderate level should be able to be completed by the student independently. Challenge/extension problems are more complex and may require outside data and/or assistance. Skills and concepts within each strand are listed below.

<p><u>Operations and Computation</u></p> <ul style="list-style-type: none"> ▪ facts ▪ mental math ▪ algorithms ▪ estimation ▪ number stories ▪ money ▪ powers of ten ▪ exponents 	<p><u>Numeration</u></p> <ul style="list-style-type: none"> ▪ counting ▪ order ▪ relations ▪ estimation ▪ odd/even ▪ fractions ▪ decimals ▪ percents
<p><u>Patterns, Functions & Algebra</u></p> <ul style="list-style-type: none"> ▪ number and visual patterns ▪ properties ▪ sequences ▪ functions ▪ number sentences ▪ equations and inequalities ▪ variables ▪ formulas 	<p><u>Data & Chance</u></p> <ul style="list-style-type: none"> ▪ mean ▪ median ▪ range ▪ mode ▪ tally charts ▪ line plots ▪ graphs ▪ probability
<p><u>Measurement & Reference Frames</u></p> <ul style="list-style-type: none"> ▪ linear measures ▪ weight ▪ capacity ▪ money ▪ time ▪ temperature ▪ perimeter ▪ area ▪ volume ▪ diameter and circumference ▪ angle ▪ coordinate grid 	<p><u>Geometry</u></p> <ul style="list-style-type: none"> ▪ two dimensional ▪ three dimensional ▪ symmetry ▪ congruence ▪ angles




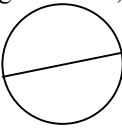



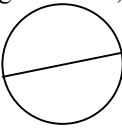
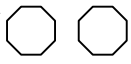


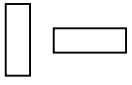
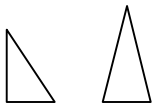



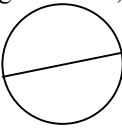
Grade Five - Week One

<p>1a. List, in order from least to greatest, all factors for the following numbers: 8, 16, 24, 25, 49, 54 . (hint: use factor rainbows and divisibility tests)</p> <p>1b. The numbers 16, 25, and 49 each have a factor that is multiplied by itself to obtain the given product. What are these numbers called? List the first 12 of these numbers and their square root factors in order. Three have been done for you: $1 * 1 = 1$; $6 * 6 = 36$; $10 * 10 = 100$.</p> <p>1c. Using divisibility tests, indicate whether each number given is divisible by 2, 3, 5, 6, and 9. Next to each number, circle the numbers by which it is divisible.</p> <table style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><i>number</i></th> <th style="text-align: left; border-bottom: 1px solid black;"><i>is divisible by</i> . . .</th> </tr> </thead> <tbody> <tr> <td>63</td> <td>2 3 5 6 9</td> </tr> <tr> <td>175</td> <td>2 3 5 6 9</td> </tr> <tr> <td>2,412</td> <td>2 3 5 6 9</td> </tr> <tr> <td>44,671</td> <td>2 3 5 6 9</td> </tr> <tr> <td>156,389</td> <td>2 3 5 6 9</td> </tr> </tbody> </table>	<i>number</i>	<i>is divisible by</i> . . .	63	2 3 5 6 9	175	2 3 5 6 9	2,412	2 3 5 6 9	44,671	2 3 5 6 9	156,389	2 3 5 6 9	<p>2a. Count the number of televisions and telephones you have in your home. Their sum is: _____. Now tell as much as you can about his number. (odd/even, prime/composite, list its multiples, etc.)</p> <p>2b. Write the definition of the terms prime and composite. Then show whether each number below is prime or composite by circling the p or c next to the number.</p> <table style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><i>number</i></th> <th style="text-align: left; border-bottom: 1px solid black;"><i>prime / composite</i></th> </tr> </thead> <tbody> <tr> <td>7</td> <td>p c</td> </tr> <tr> <td>12</td> <td>p c</td> </tr> <tr> <td>29</td> <td>p c</td> </tr> <tr> <td>39</td> <td>p c</td> </tr> <tr> <td>51</td> <td>p c</td> </tr> </tbody> </table> <p>2c. List the first 20 prime numbers in order from least to greatest. Then list the first 20 composite numbers in order from greatest to least. Finally, explain why the number 1 will not appear on either list.</p>	<i>number</i>	<i>prime / composite</i>	7	p c	12	p c	29	p c	39	p c	51	p c
<i>number</i>	<i>is divisible by</i> . . .																								
63	2 3 5 6 9																								
175	2 3 5 6 9																								
2,412	2 3 5 6 9																								
44,671	2 3 5 6 9																								
156,389	2 3 5 6 9																								
<i>number</i>	<i>prime / composite</i>																								
7	p c																								
12	p c																								
29	p c																								
39	p c																								
51	p c																								
<p>3a. Complete the following patterns:</p> <p style="margin-left: 20px;">○ □ ○ ○ □ □ ○ ○ ○ □ □ □ . . .</p> <p style="margin-left: 20px;">1, 4, 7, 10, 13, __, __, __, __, __, __, . . .</p> <p style="margin-left: 20px;">256, 128, 64, 32, __, __, __, __, __, __, . . .</p> <p>3b. Complete the following patterns:</p> <p style="margin-left: 20px;"> </p> <p style="margin-left: 20px;">3, 6, 12, 24, 48, __, __, __, . . .</p> <p>3c. Complete the following patterns:</p> <p style="margin-left: 20px;">5, 9, 17, 33, 65, __, __, __, . . .</p> <p style="margin-left: 20px;">0, 1, 3, 6, 10, 15, 21, __, __, __, . . .</p> <p style="margin-left: 20px;">0, 1, 1, 2, 3, 5, 8, 13, __, __, __, . . .</p> <p style="margin-left: 40px;">(Fibonacci's sequence)</p>	<p>4a. In Miguel's summer school class he takes a quiz each day. In the last two weeks, he has earned the following ten scores. NOTE: Each quiz is worth 10 points. Miguel's scores: 9, 6, 7, 8, 8, 10, 5, 10, 9, 8</p> <p style="margin-left: 20px;">What is the maximum, the minimum, the range and the mode for Miguel's quiz score data?</p> <p>4b. What is Miguel's median quiz score? What is his mean quiz score? (round to the nearest whole point)</p> <p>4c. Suppose Miguel's teacher let him retake his lowest quiz score to raise his average score to 9? Explain your answer. Is it possible for him to?</p>																								
<p>5a. Measure the following line segments to the nearest quarter inch.</p> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>5b. If you used the longest line segment in the previous problem to create a square, what would be the perimeter and the area of that square? (Be sure to use appropriate labels.)</p> <p>5c. How would the perimeter and size of the square created in the previous problem be different if either of the other line segments was used? (Round answers to the nearest thousandth.)</p>	<p>6a. Name the following figures. Tell whether each is 2- or 3-dimensional, and whether it is regular or not.</p> <p style="margin-left: 20px;"> </p> <p>6b. Provide at least three names for the following shapes. (Hint: Move from general to specific.) Then tell whether each is 2- or 3-dimensional, and whether it is regular or not.</p> <p style="margin-left: 20px;"> </p> <p>6c. Find something in or around your home, or in the real world that includes <i>both</i> of the figures listed below. Then draw the object and label each shape.</p> <p style="margin-left: 40px;"> rectangular prism & pyramid cone & sphere cube & triangular prism </p>																								

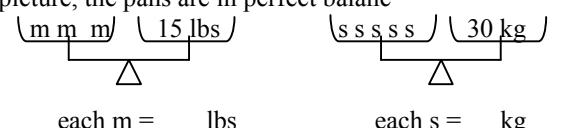
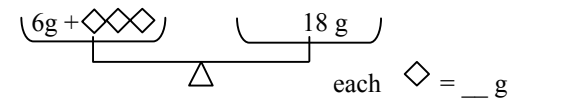
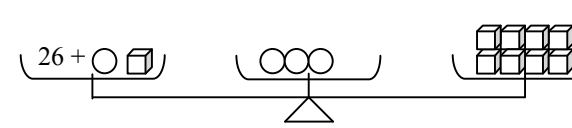
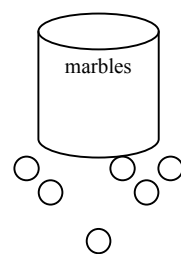
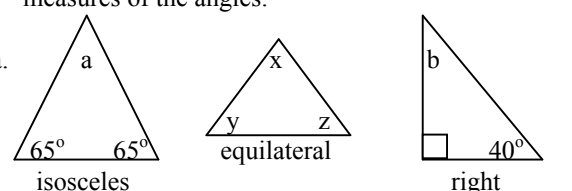

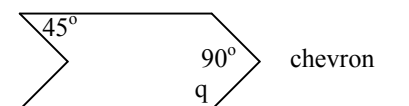
Grade Five - Week Three

<p>1a. After estimating, use the traditional multiplication algorithm to solve the following problems. $17 * 21 = \underline{\quad}$ $49 * 99 = \underline{\quad}$ $306 * 68 = \underline{\quad}$</p> <p>1b. Check your work in the previous problems by solving for each product using the lattice method of multiplication.</p> <p>1c. Find and correct the mistakes in the following work.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: right; margin-right: 20px;"> $\begin{array}{r} 86 \\ \times 22 \\ \hline 172 \\ + 172 \\ \hline 344 \end{array}$ </div> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td></td> <td>4</td> <td>8</td> <td>9</td> <td></td> </tr> <tr> <td>1</td> <td>$\begin{array}{ c } \hline 1 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 1 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 2 \\ \hline \end{array}$</td> <td>3</td> </tr> <tr> <td></td> <td>$\begin{array}{ c } \hline 2 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 1 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 7 \\ \hline \end{array}$</td> <td></td> </tr> <tr> <td>3</td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>0</td> </tr> <tr> <td></td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 6 \\ \hline \end{array}$</td> <td></td> </tr> <tr> <td>5</td> <td>$\begin{array}{ c } \hline 2 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 4 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 3 \\ \hline \end{array}$</td> <td>5</td> </tr> <tr> <td></td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 0 \\ \hline \end{array}$</td> <td>$\begin{array}{ c } \hline 6 \\ \hline \end{array}$</td> <td></td> </tr> <tr> <td></td> <td>1</td> <td>3</td> <td>6</td> <td></td> </tr> </table> </div> <p style="margin-top: 20px;">$86 * 22 = 344$ $489 * 305 = 135,136$</p>		4	8	9		1	$\begin{array}{ c } \hline 1 \\ \hline \end{array}$	$\begin{array}{ c } \hline 1 \\ \hline \end{array}$	$\begin{array}{ c } \hline 2 \\ \hline \end{array}$	3		$\begin{array}{ c } \hline 2 \\ \hline \end{array}$	$\begin{array}{ c } \hline 1 \\ \hline \end{array}$	$\begin{array}{ c } \hline 7 \\ \hline \end{array}$		3	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	0		$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 6 \\ \hline \end{array}$		5	$\begin{array}{ c } \hline 2 \\ \hline \end{array}$	$\begin{array}{ c } \hline 4 \\ \hline \end{array}$	$\begin{array}{ c } \hline 3 \\ \hline \end{array}$	5		$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 6 \\ \hline \end{array}$			1	3	6		<p>2a. Name the digit in the given place value for the following decimal. $726,324,198.56923$ <i>thousandths:</i> <u> </u> <i>hundred thousands:</i> <u> </u> <i>hundred thousandths:</i> <u> </u> <i>millions:</i> <u> </u> <i>ones:</i> <u> </u> <i>ten thousands:</i> <u> </u></p> <p>2b. Write the six-digit number that has . . . <i>a seven in the tens place</i> <i>3^2 in the ten thousands place</i> <i>the largest even factor of eight in the ones place</i> <i>one fourth of 12 in the hundreds place</i> <i>the smallest factor of 10 in the thousands place</i> <i>the only even prime number in the remaining place</i></p> <p>2c. Which place value is . . . <i>one thousandth the value of ten million?</i> <i>ten times the value of one tenth?</i> <i>one tenth the value of one hundred thousand?</i> <i>ten thousand times the value of one hundredth?</i></p>
	4	8	9																																						
1	$\begin{array}{ c } \hline 1 \\ \hline \end{array}$	$\begin{array}{ c } \hline 1 \\ \hline \end{array}$	$\begin{array}{ c } \hline 2 \\ \hline \end{array}$	3																																					
	$\begin{array}{ c } \hline 2 \\ \hline \end{array}$	$\begin{array}{ c } \hline 1 \\ \hline \end{array}$	$\begin{array}{ c } \hline 7 \\ \hline \end{array}$																																						
3	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	0																																					
	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 6 \\ \hline \end{array}$																																						
5	$\begin{array}{ c } \hline 2 \\ \hline \end{array}$	$\begin{array}{ c } \hline 4 \\ \hline \end{array}$	$\begin{array}{ c } \hline 3 \\ \hline \end{array}$	5																																					
	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 0 \\ \hline \end{array}$	$\begin{array}{ c } \hline 6 \\ \hline \end{array}$																																						
	1	3	6																																						
<p>3 Find the value(s) of the variables in the algebraic equations below.</p> <p>a. $x + 6 = 13$, $x = \underline{\quad}$ $20 / y = 10$, $y = \underline{\quad}$ $99 - z = 44$, $z = \underline{\quad}$</p> <p>b. $11m = 77$, $m = \underline{\quad}$ $10r + 6 = 86$, $r = \underline{\quad}$ $1/2 k = 1200$, $k = \underline{\quad}$</p> <p>c. $27 < j < 29$, $j = \underline{\quad}$ $58 < f < 65$, $f = \underline{\quad}$ $2g < 10$, $g = \underline{\quad}$</p>	<p>4a. If you were to flip a fair coin in the air, what is the chance that you will get a heads? What is the probability of you getting two heads in a row?</p> <p>4b. Using the same fair coin, what is the likelihood that you can get four heads in a row? (hint: make an organized list of all possible outcomes, or use a tree diagram)</p> <p>4c. Using your list of outcomes from the previous problem, what is the probability of getting . . . <i>four tails in a row?</i> <i>two heads and two tails? (in any order)</i> <i>an odd number of heads?</i></p> <p>Suppose you flip the coin again (the fifth toss). If you did get all heads on the first four tosses, what is the chance of getting another heads on this fifth toss?</p>																																								
<p>5a. Give the perimeter of the shapes below, using appropriate labels.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> 12 cm  4 cm </div> <div style="text-align: center;"> 4 cm  4 cm </div> <div style="text-align: center;"> 6 cm  1 cm </div> </div> <p>5b. Give the perimeter and area for the following shapes, using appropriate labels. What do you notice?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> 8 ft  3 ft </div> <div style="text-align: center;"> 6 ft  6 ft </div> <div style="text-align: center;"> 12 ft  2 ft </div> </div> <p>5c. Give the perimeter and area for the shapes below.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  3 ft 4 ft </div> <div style="text-align: center;">  1 in 8 in 2 in </div> </div>	<p>6a. Estimate the measures of the following angles and label each as acute, obtuse, or right.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  $\angle ABC$ </div> <div style="text-align: center;">  $\angle DEF$ </div> <div style="text-align: center;">  $\angle GHI$ </div> </div> <p>5b. Use what you know about angles to calculate the exact measure of each angle given, without measuring.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  50° </div> <div style="text-align: center;">  45° 45° </div> </div> <p>5c. Name and define the angle shown in the figure to the right. Then calculate the measure of the angle.</p> <div style="text-align: center;">  40° </div>																																								

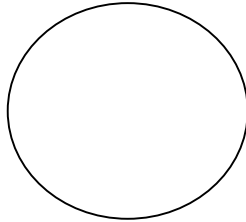








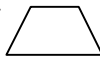





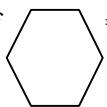







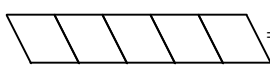
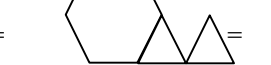
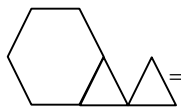

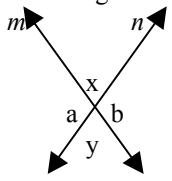
Grade Five - Week Four

<p>1a. Rewrite the following factor chains using exponential notation. Three problems have been done for you.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 5px;">$2 * 2 * 2 = 2^3$</td> <td style="border-right: 1px solid black; padding: 5px;">$3 * 3 = 3^2$</td> <td style="padding: 5px;">$5 * 5 * 5 * 5 = 5^4$</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;">$7 * 7 * 7 = \underline{\quad}$</td> <td style="border-right: 1px solid black; padding: 5px;">$1 * 1 = \underline{\quad}$</td> <td style="padding: 5px;">$4 * 4 * 4 = \underline{\quad}$</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;">$8 * 8 = \underline{\quad}$</td> <td style="border-right: 1px solid black; padding: 5px;">$6 * 6 * 6 = \underline{\quad}$</td> <td style="padding: 5px;">$9 * 9 * 9 * 9 = \underline{\quad}$</td> </tr> </table> <p>1b. Complete the table, according to the example.</p> <table style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="border-bottom: 1px solid black;"><i>factor chain</i></th> <th style="border-bottom: 1px solid black;"><i>exponential notation</i></th> <th style="border-bottom: 1px solid black;"><i>standard notation</i></th> </tr> </thead> <tbody> <tr> <td>$4 * 4$</td> <td>4^2</td> <td>16</td> </tr> <tr> <td>$5 * 5 * 5$</td> <td>3^4</td> <td>125</td> </tr> <tr> <td style="border-top: 1px solid black;">$2 * 2 * 2 * 2 * 2$</td> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> </tr> <tr> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> <td style="border-top: 1px solid black;">10^3</td> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> </tr> <tr> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> <td style="border-top: 1px solid black;">$\underline{\quad}$</td> </tr> </tbody> </table> <p>1c. Rewrite the following numeric expressions using exponential notation.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">$2 * 3 * 2 * 3 * 2 * 3 * 2$</td> <td style="width: 50%; text-align: right;">100,000</td> </tr> <tr> <td>7</td> <td style="text-align: right;">$4 * 6 * 4 * 3 * 4 * 6$</td> </tr> <tr> <td>$36 + 64$</td> <td style="text-align: right;">$8 * 8 * 8 * 5 * 5$</td> </tr> </table>	$2 * 2 * 2 = 2^3$	$3 * 3 = 3^2$	$5 * 5 * 5 * 5 = 5^4$	$7 * 7 * 7 = \underline{\quad}$	$1 * 1 = \underline{\quad}$	$4 * 4 * 4 = \underline{\quad}$	$8 * 8 = \underline{\quad}$	$6 * 6 * 6 = \underline{\quad}$	$9 * 9 * 9 * 9 = \underline{\quad}$	<i>factor chain</i>	<i>exponential notation</i>	<i>standard notation</i>	$4 * 4$	4^2	16	$5 * 5 * 5$	3^4	125	$2 * 2 * 2 * 2 * 2$	$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$	10^3	$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$	$2 * 3 * 2 * 3 * 2 * 3 * 2$	100,000	7	$4 * 6 * 4 * 3 * 4 * 6$	$36 + 64$	$8 * 8 * 8 * 5 * 5$	<p>2. Compare the following sets of fractions using $<$, $>$, or $=$.</p> <p>a. $1/2$ ___ $3/4$ $2/3$ ___ $4/6$ $1/4$ ___ $3/4$</p> <p>$4/8$ ___ $1/2$ $1/3$ ___ $1/4$ $5/10$ ___ $1/4$</p> <p>b. Put the following fractions in order from least to greatest.</p> <p style="text-align: center;">$1/2, 1/3, 1/4, 2/3, 1/10, 3/3, 3/4$</p> <p>c. Put the following fractions in order from greatest to least.</p> <p style="text-align: center;">$3/5, 4/7, 7/8, 8/9, 9/10, 4/6, 5/6$</p>																																													
$2 * 2 * 2 = 2^3$	$3 * 3 = 3^2$	$5 * 5 * 5 * 5 = 5^4$																																																																													
$7 * 7 * 7 = \underline{\quad}$	$1 * 1 = \underline{\quad}$	$4 * 4 * 4 = \underline{\quad}$																																																																													
$8 * 8 = \underline{\quad}$	$6 * 6 * 6 = \underline{\quad}$	$9 * 9 * 9 * 9 = \underline{\quad}$																																																																													
<i>factor chain</i>	<i>exponential notation</i>	<i>standard notation</i>																																																																													
$4 * 4$	4^2	16																																																																													
$5 * 5 * 5$	3^4	125																																																																													
$2 * 2 * 2 * 2 * 2$	$\underline{\quad}$	$\underline{\quad}$																																																																													
$\underline{\quad}$	10^3	$\underline{\quad}$																																																																													
$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$																																																																													
$2 * 3 * 2 * 3 * 2 * 3 * 2$	100,000																																																																														
7	$4 * 6 * 4 * 3 * 4 * 6$																																																																														
$36 + 64$	$8 * 8 * 8 * 5 * 5$																																																																														
<p>3a. Complete the following function machine problems.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 5px;">rule: add 7</td> <td style="border-right: 1px solid black; padding: 5px;">rule: subtract 15</td> <td style="padding: 5px;">rule: multiply by 9</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>5</td><td>12</td></tr> <tr><td>—</td><td>18</td></tr> <tr><td>60</td><td>—</td></tr> <tr><td>—</td><td>94</td></tr> </table> </td> <td style="border-right: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>25</td><td>10</td></tr> <tr><td>45</td><td>—</td></tr> <tr><td>—</td><td>95</td></tr> <tr><td>—</td><td>1</td></tr> </table> </td> <td style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>2</td><td>18</td></tr> <tr><td>0</td><td>—</td></tr> <tr><td>—</td><td>72</td></tr> <tr><td>3</td><td>—</td></tr> </table> </td> </tr> </table> <p>3b. Complete the following function machine problems.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding: 5px;">rule: divide by 4</td> <td style="border-right: 1px solid black; padding: 5px;">rule: multiply by 11</td> <td style="padding: 5px;">rule: square</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>24</td><td>6</td></tr> <tr><td>—</td><td>100</td></tr> <tr><td>—</td><td>64</td></tr> <tr><td>1000</td><td>250</td></tr> <tr><td>4</td><td>—</td></tr> </table> </td> <td style="border-right: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>3</td><td>33</td></tr> <tr><td>7</td><td>—</td></tr> <tr><td>—</td><td>121</td></tr> <tr><td>9</td><td>—</td></tr> <tr><td>—</td><td>110</td></tr> </table> </td> <td style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>5</td><td>25</td></tr> <tr><td>—</td><td>144</td></tr> <tr><td>13</td><td>—</td></tr> <tr><td>7</td><td>—</td></tr> <tr><td>—</td><td>10,000</td></tr> </table> </td> </tr> </table> <p>3c. Rewrite the 6 function problem rules as algebraic expressions, using the variable x for the “in” and y for the “out”, according to the example below.</p> <p>rule: add seven $\longrightarrow y = x + 7$</p>	rule: add 7	rule: subtract 15	rule: multiply by 9	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>5</td><td>12</td></tr> <tr><td>—</td><td>18</td></tr> <tr><td>60</td><td>—</td></tr> <tr><td>—</td><td>94</td></tr> </table>	in	out	5	12	—	18	60	—	—	94	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>25</td><td>10</td></tr> <tr><td>45</td><td>—</td></tr> <tr><td>—</td><td>95</td></tr> <tr><td>—</td><td>1</td></tr> </table>	in	out	25	10	45	—	—	95	—	1	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>2</td><td>18</td></tr> <tr><td>0</td><td>—</td></tr> <tr><td>—</td><td>72</td></tr> <tr><td>3</td><td>—</td></tr> </table>	in	out	2	18	0	—	—	72	3	—	rule: divide by 4	rule: multiply by 11	rule: square	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>24</td><td>6</td></tr> <tr><td>—</td><td>100</td></tr> <tr><td>—</td><td>64</td></tr> <tr><td>1000</td><td>250</td></tr> <tr><td>4</td><td>—</td></tr> </table>	in	out	24	6	—	100	—	64	1000	250	4	—	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>3</td><td>33</td></tr> <tr><td>7</td><td>—</td></tr> <tr><td>—</td><td>121</td></tr> <tr><td>9</td><td>—</td></tr> <tr><td>—</td><td>110</td></tr> </table>	in	out	3	33	7	—	—	121	9	—	—	110	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>5</td><td>25</td></tr> <tr><td>—</td><td>144</td></tr> <tr><td>13</td><td>—</td></tr> <tr><td>7</td><td>—</td></tr> <tr><td>—</td><td>10,000</td></tr> </table>	in	out	5	25	—	144	13	—	7	—	—	10,000	<p>4a. Find the range, mean, median, and mode for the following data set.</p> <p style="text-align: center;">10, 12, 8, 13, 11, 12, 16, 19, 12, 20</p> <p>4b. Watch the weather report for 5 days, recording the daily high and low temperature – for a total of 10 temperatures. Use this set of data to find the following statistical landmarks:</p> <ul style="list-style-type: none"> • <i>minimum</i> • <i>maximum</i> • <i>range</i> • <i>median</i> • <i>mode</i> • <i>mean</i> <p>4c. Using the statistical information provided, find the missing number in the data set.</p> <p style="text-align: center;">data set: 45, 63, 51, 56, 62, 51, 58, 49, ___</p> <p style="text-align: center;">range: 18 median: 51 mean: 54</p>
rule: add 7	rule: subtract 15	rule: multiply by 9																																																																													
<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>5</td><td>12</td></tr> <tr><td>—</td><td>18</td></tr> <tr><td>60</td><td>—</td></tr> <tr><td>—</td><td>94</td></tr> </table>	in	out	5	12	—	18	60	—	—	94	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>25</td><td>10</td></tr> <tr><td>45</td><td>—</td></tr> <tr><td>—</td><td>95</td></tr> <tr><td>—</td><td>1</td></tr> </table>	in	out	25	10	45	—	—	95	—	1	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>2</td><td>18</td></tr> <tr><td>0</td><td>—</td></tr> <tr><td>—</td><td>72</td></tr> <tr><td>3</td><td>—</td></tr> </table>	in	out	2	18	0	—	—	72	3	—																																															
in	out																																																																														
5	12																																																																														
—	18																																																																														
60	—																																																																														
—	94																																																																														
in	out																																																																														
25	10																																																																														
45	—																																																																														
—	95																																																																														
—	1																																																																														
in	out																																																																														
2	18																																																																														
0	—																																																																														
—	72																																																																														
3	—																																																																														
rule: divide by 4	rule: multiply by 11	rule: square																																																																													
<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>24</td><td>6</td></tr> <tr><td>—</td><td>100</td></tr> <tr><td>—</td><td>64</td></tr> <tr><td>1000</td><td>250</td></tr> <tr><td>4</td><td>—</td></tr> </table>	in	out	24	6	—	100	—	64	1000	250	4	—	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>3</td><td>33</td></tr> <tr><td>7</td><td>—</td></tr> <tr><td>—</td><td>121</td></tr> <tr><td>9</td><td>—</td></tr> <tr><td>—</td><td>110</td></tr> </table>	in	out	3	33	7	—	—	121	9	—	—	110	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black; width: 50%;">in</td><td style="border-bottom: 1px solid black; width: 50%;">out</td></tr> <tr><td>5</td><td>25</td></tr> <tr><td>—</td><td>144</td></tr> <tr><td>13</td><td>—</td></tr> <tr><td>7</td><td>—</td></tr> <tr><td>—</td><td>10,000</td></tr> </table>	in	out	5	25	—	144	13	—	7	—	—	10,000																																									
in	out																																																																														
24	6																																																																														
—	100																																																																														
—	64																																																																														
1000	250																																																																														
4	—																																																																														
in	out																																																																														
3	33																																																																														
7	—																																																																														
—	121																																																																														
9	—																																																																														
—	110																																																																														
in	out																																																																														
5	25																																																																														
—	144																																																																														
13	—																																																																														
7	—																																																																														
—	10,000																																																																														
<p>5a. Find the requested information for each figure below, where r = radius and d = diameter.</p> <table style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>$r = 3$ cm</td> <td>$d = 8$ in.</td> <td>$r = 5$ ft.</td> <td>$d = 10$ m</td> </tr> <tr> <td>find d</td> <td>find r</td> <td>find d</td> <td>find r</td> </tr> </table> <p>5b. Define the terms radius and diameter and describe the relationship between the two.</p> <p>5c. Circumference is the distance around a circle. Use the formula $circumference = \pi * d$ (where $\pi = 3.14$) to find the circumference of the circles above.</p>					$r = 3$ cm	$d = 8$ in.	$r = 5$ ft.	$d = 10$ m	find d	find r	find d	find r	<p>6a. Circle any pairs of shapes below that are similar. Cross out any pairs of shapes below that are congruent. Leave any pairs of shapes alone if they are neither similar nor congruent.</p> <p>1.  2.  3.  4. </p> <p>6b. Explain in your own words the terms congruent and similar, and draw examples of each.</p> <p>6c. Explain why the two triangles shown at the right are neither congruent nor similar. Provide at least three reasons.</p> <div style="text-align: center;">  </div>																																																																		
																																																																															
$r = 3$ cm	$d = 8$ in.	$r = 5$ ft.	$d = 10$ m																																																																												
find d	find r	find d	find r																																																																												

Grade Five - Week Five

<p>1a. Trevor, Mike, and Keisha all collect baseball cards. Altogether, the kids have 46 cards. Mike has 16 cards. Keisha and Trevor have the same number of cards. How many baseball cards do Keisha and Mike each have?</p> <p>1b. Trevor trades $\frac{1}{3}$ of his cards to Mike and in return gets 3 valuable cards from Mike. After this trade, who has the most baseball cards?</p> <p>1c. Yet another trade was made for baseball cards between Keisha and Trevor. If Keisha gave 2 cards to Trevor, and he ended up having $\frac{2}{3}$ as many cards as Mike, how many cards did Trevor give to Keisha in the trade?</p>	<p>2a. Solve.</p> <ol style="list-style-type: none"> 1. 50% of 100 is ___. 2. 25% of 100 is ___. 3. 45% of 100 is ___. 4. 17% of 100 is ___. 5. What does percent mean? <p>2b. Solve.</p> <ol style="list-style-type: none"> 1. 50% of 50 is ___. 2. 50% of 30 is ___. 3. 75% of 24 is ___. 4. 25% of 60 is ___. <p>2c. Solve.</p> <ol style="list-style-type: none"> 1. 5% of 80 is ___. 2. 20% of 75 is ___. 3. 33.3% of 9 is ___. 4. 50% of 40% of 90 is ___. 						
<p>3. Solve the following pan balance problems. In each picture, the pans are in perfect balance</p> <p>a.  each m = ___ lbs each s = ___ kg</p> <p>b.  each \diamond = ___ g</p> <p>c. </p>	<p>4a. A jar holds 24 colored glass marbles. 6 are blue, 4 are yellow, 3 are green, 1 is white, and the rest are red. If you reached into the jar without looking and pulled out one marble, that marble is most likely to be which color? How do you know?</p>  <p>4b. Using the marble jar described in part a, what is the probability of choosing, again without looking, a marble that is . . .</p> <table style="margin-left: 40px;"> <tr> <td><i>green?</i></td> <td><i>blue?</i></td> </tr> <tr> <td><i>red?</i></td> <td><i>yellow?</i></td> </tr> <tr> <td><i>white?</i></td> <td><i>orange?</i></td> </tr> </table> <p>4c. 1. Convert each probability in the previous problem to a percent. Explain the relationships between the probabilities.</p> <p>2. Would the probabilities be affected if the green and white and white marbles were removed from the jar? If so, explain how. If not, explain why not.</p>	<i>green?</i>	<i>blue?</i>	<i>red?</i>	<i>yellow?</i>	<i>white?</i>	<i>orange?</i>
<i>green?</i>	<i>blue?</i>						
<i>red?</i>	<i>yellow?</i>						
<i>white?</i>	<i>orange?</i>						
<p>5. Solve the following clock fractions.</p> <p>a. 1. $\frac{1}{4}$ of an hour = ___ minutes 2. $\frac{1}{3}$ of an hour = ___ minutes 3. 45 minutes = ___ of an hour 4. 10 minutes = ___ of an hour</p> <p>b. 1. 5 minutes = ___ of an hour 2. 6 minutes = ___ of an hour 3. $\frac{1}{20}$ of an hour = ___ minutes 4. $\frac{1}{30}$ of an hour = ___ minutes</p> <p>c. 1. 5 minutes = ___ of a day 2. $\frac{1}{4}$ of an hour = ___ of a day 3. 6 hours and 15 minutes = ___ of a day 4. 12 hours and 49 minutes = ___ of a day</p>	<p>6. Use what you know about geometry to find the measures of the angles.</p> <p>a.  isosceles equilateral right</p> <p>b.  parallelogram regular pentagon</p> <p>c.  chevron</p>						

Grade Five - Week Six

<p>1. Solve, showing all your work.</p> <p>a. 1. $526 + 4,231 + 27 = \underline{\quad}$ 2. $29,856 - 13,962 = \underline{\quad}$ 3. $267 * 18 = \underline{\quad}$ 4. $7,625 / 5 = \underline{\quad}$</p> <p>b. 1. $32.94 + 116.78 + 1,902.4 = \underline{\quad}$ 2. $9,873.21 - 4,926.35 = \underline{\quad}$ 3. $46.8 * 21 = \underline{\quad}$ 4. $854.4 / 3 = \underline{\quad}$</p> <p>c. 1. $716 + 822.04 + 9,000.002 = \underline{\quad}$ 2. $17,426.8 - 12,673.99 = \underline{\quad}$ 3. $4.67 * 29.7 = \underline{\quad}$ 4. $8568.018 / 6 = \underline{\quad}$</p>	<p>2a. Use the picture and the directions below to solve the problems.</p> <p>1. Divide the pizza to the right into 12 equal pieces.</p> <p>2. Label the pieces as follows:</p> <table style="margin-left: 20px;"> <thead> <tr> <th style="text-decoration: underline;">pieces</th> <th style="text-decoration: underline;">toppings</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>sausage</td> </tr> <tr> <td>2</td> <td>pepperoni</td> </tr> <tr> <td>2</td> <td>sausage & pepperoni</td> </tr> <tr> <td>2</td> <td>extra cheese</td> </tr> <tr> <td>2</td> <td>sausage & black olive</td> </tr> <tr> <td>1</td> <td>veggie</td> </tr> </tbody> </table> <div style="text-align: right; margin-top: 10px;">  </div> <p>b. What fraction of the pizza can be eaten by a vegetarian? What fraction of the pizza has only 1 kind of topping? What fraction of the pizza has meat as a topping?</p> <p>c. Carter ate 3 pieces of pizza, each with different toppings. If he only likes one kind of meat on each piece and hates all vegetables, what 3 pieces did he eat?</p>	pieces	toppings	3	sausage	2	pepperoni	2	sausage & pepperoni	2	extra cheese	2	sausage & black olive	1	veggie
pieces	toppings														
3	sausage														
2	pepperoni														
2	sausage & pepperoni														
2	extra cheese														
2	sausage & black olive														
1	veggie														
<p>3. For each word problem, write an open sentence (one that uses a variable) to go along with the information provided. Then use the open sentence to solve the problem. Some problems may require more than one math sentence.</p> <p>a. You have agreed to mow your neighbor's lawn as a summer job. Each week you will earn \$45 for mowing the lawn <i>twice</i> – on Wednesdays and Sundays. If you stay with job for 11 weeks, how much will you earn this summer?</p> <p>b. Now let's pretend that for 10 days you will be away at summer camp. Not only will you miss three days of mowing, but you are also going to pay half the cost of the camp for your family. If the camp costs \$700, how much will earn by the end of the summer?</p> <p>c. What percent of your total summer earning was lost by going to summer camp?</p>	<p>4a. If  = 1, how much are the shapes below worth?</p> <p> =    =    =</p> <hr/> <p>b. If  = 1, how much are the shapes below worth?</p> <p> =   =   =</p> <hr/> <p>c. If  = 1, how much are the shapes below worth? Express the last two values in fraction and mixed number form.</p> <p>  =  =     =</p> <p>  =   =</p> <p>Now, using the information in part c, draw a shape the would be worth 1/12. Draw a shape worth 1/24.</p>														
<p>5a. Measure each line to the nearest 1/2 inch.</p> <p>1. _____ 2. _____ 3. _____</p> <p>b. If each line segment in the previous problem were cut in half, what would each new length measure?</p> <p>c. Measure the line segment to the nearest 1/16 of an inch. If this line segment were cut in half, what would the new length measure? _____</p>	<p>6a. In the figure below, the angles x and y, and the angles a and b are what type of angles?</p> <div style="text-align: center;">  </div> <p>b. If angles a and b each measure 115°, what are the measures of angles x and y? How do you know?</p> <p>c. Suppose line m were rotated so that angle a measured 90°. What would be measures of the other three angles in the figure. What vocabulary word could you use to describe lines m and n?</p>														

Grade Five - Week Seven

1. Solve the following long division problems. Be sure to estimate first and remember to check your work with multiplication. Express any remainders by using *R*.

a.

$6 \overline{)828}$	$9 \overline{)6,543}$	$3 \overline{)24,512}$
---------------------	-----------------------	------------------------

b.

$7 \overline{)28,629}$	$4 \overline{)345,290}$	$8 \overline{)406,001}$
------------------------	-------------------------	-------------------------

1c. Solve the following long division problems. Be sure to estimate first and check your work with multiplication. Express any remainders using all three methods (*R*, as a fraction, and as a decimal – rounded to the nearest hundredth).

$7 \overline{)602,456}$	$19 \overline{)21,482}$	$12 \overline{)9,307}$
-------------------------	-------------------------	------------------------

2. Please solve the following problems according to the order of operations described below.

1. *parentheses*
2. *exponents*
3. *multiplication or division, left to right*
4. *addition or subtraction, left to right*

Remember: *Please excuse my dear Aunt Sally!*

a.

1. $(12 - 6) * 8 = \underline{\quad}$
2. $18 + (9 * 3) = \underline{\quad}$
3. $63 / 9 - (16 / 4) = \underline{\quad}$
4. $12 + 6 * 0 = \underline{\quad}$

b.

1. $4^2 + 6 * 0 - 1 = \underline{\quad}$
2. $9 * 3^2 + 11 * 2 = \underline{\quad}$
3. $2^3 - (6 / 3 + 3) = \underline{\quad}$
4. $24 / 2^2 + 4 / 2 = \underline{\quad}$

c. Insert parentheses to make the number sentences true.

1. $54 / 9 + 18 * 2 / 7 = 6$
2. $8 / 2 * 4 + 24 / 3 * 1 = 24$
3. $10 - 4 / 2 * 3 + 6 / 6 = 5$

3. Fill in the missing numbers in the sequences.

a.

1. 8, , 24, , 40, 48, , 64
2. 72, 66, , 54, , 42, 36,
3. 113, , 93, 83, , , 53, 43
4. 67, 69, , , 75, , 79, 81

b.

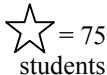
1. 9, , 39, 54, , 84, , 114
2. 726, , 652, 615, , , 504
3. 7, , , , 35, , , 56,
4. 256, , 64, , 16, , 4, , 1,

c.






1. 5, , , , , , 83,
2. , 12, , , , 40, ,
3. .23, , , 1.28, , , 2.33
4. 1, , , 3, , , 5, , , 7

4. Use the pictograph below to answer the following questions.

Students' Favorite School Lunch



★ = 75 students

				
chili	pizza	tacos	fish	spaghetti

a. Label the vertical axis and horizontal axis of the graph with appropriate titles. How many students voted for the favorite lunch?

b. If every student's vote is shown on this graph, how many students attend this school?

c. Give two equivalent fractions and a percent to express the number of students who chose *tacos or fish*.

5. Complete the following metric length relationships.

a.

<u> </u> mm = 1 cm	<u> </u> cm = 1 dm	<u> </u> m = 1 km
<u> </u> mm = 1 dm	<u> </u> cm = 1 m	<u> </u> dm = 1 km
<u> </u> mm = 1 m	<u> </u> dm = 1 m	<u> </u> cm = 1 km

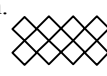
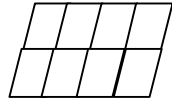
b.

1 mm = <u> </u> cm	1 cm = <u> </u> dm	1 m = <u> </u> km
1 mm = <u> </u> dm	1 cm = <u> </u> m	1 dm = <u> </u> km
1 mm = <u> </u> m	1 dm = <u> </u> m	1 cm = <u> </u> km







c. Express the following relationships in *both* fraction and decimal form.

1 mm = km 7 dm = km 20 cm = km

6a. The following shapes tessellate. Define the term tessellation.

b. Will the following shapes tessellate? Check your answer by sketching the shapes.

c. Write down 20 different examples of tessellations you can find in the real world. They can be man-made or natural. Sketch your 5 favorite tessellations.

Grade Five - Week Nine

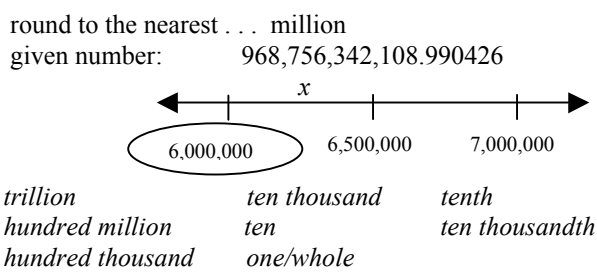
1a. Round 2,617,483 to the nearest . . .

<i>million</i>	<i>ten thousand</i>	<i>hundred</i>
<i>hundred thousand</i>	<i>thousand</i>	<i>ten</i>

1b. Round 8,629,741,083.59304 to the nearest . . .

<i>billion</i>	<i>ten thousand</i>	<i>tenth</i>
<i>hundred million</i>	<i>thousand</i>	<i>hundredth</i>
<i>ten million</i>	<i>hundred</i>	<i>thousandth</i>
<i>million</i>	<i>ten</i>	<i>ten thousandth</i>
<i>hundred thousand</i>	<i>one/whole</i>	

1c. Draw a number line to show the two numbers between which the given number falls, as well as the midpoint. Use an x to indicate the given number on the number line. Then circle the number to which the given number would be rounded. An example has been done for you.



2. a. Complete the following conversion tables.

fraction	decimal	percent
1/2	.5	50%
	.4	
		75%
	.8	
		20%
7/10		

b.

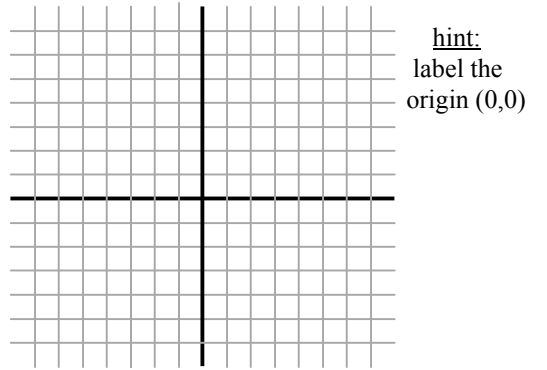
fraction	decimal	percent
1/20	.05	5%
1/3		
		17%
2/3		
		10%
	.99	

c.

fraction	decimal	percent
7/8	.875	87.5%
5/6		
		12.5%
7/8		
	.625	
		110%

3. Plot the given points on the coordinate grid using the color ink indicated. The connect the points with a straightedge. Finally, name the shape constructed.

- a. pencil (1,2), (3,2), (5,6), (7,6)
- b. blue ink (-1,0), (2,-3), (-3,0), (-6,-3)
- c. red ink (0,7), (3,4), (3,-6), (0,-3), (-3,-6), (-3,4)



4a. Conduct a survey by asking at least 20 friends and family members, "What is your favorite thing about summer?" You may accept any response offered, or you may create 5-7 responses from which to choose. Record your data in the form of a tally chart or line plot.

4b. Using the data collected about summer, create a bar graph, a pictograph, and a pie graph. Then write a paragraph about your findings.

4c. In this activity, you surveyed only people you know. So, your sample of people was not random. Answer the questions below, and be sure to explain your reasoning. *What would you do to get a more random sample of the population for this survey? Do you think a random sample of the population would show similar results to your survey? When conducting a survey, why is it important to have a random sample?*

5. Complete the following equivalencies.

a. customary units of length

__ inches = 1 foot	__ feet = 1 yard	__ yards = 1 mile
__ inches = 1 yard	__ feet = 1 mile	

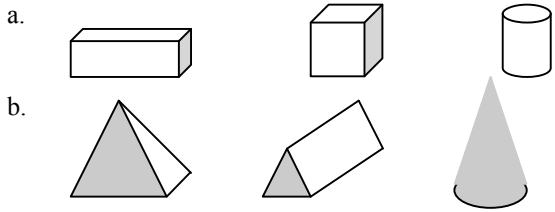
b. customary units of weight

__ ounces = 1 pound	__ pounds = 1 ton	__ ounces = 1 ton
---------------------	-------------------	-------------------

c. customary units of capacity

__ cups = 1 pint	__ cups = 1 quart	__ cups = 1 gallon
__ pints = 1 quart	__ pints = 1 gallon	__ quarts = 1 gallon

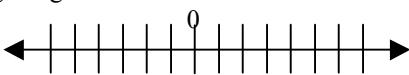
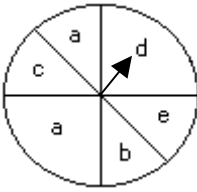
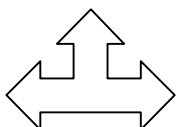
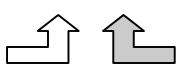
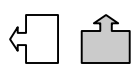
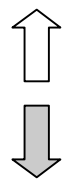
6a-b. Name the 3-dimensional solid and give its number of faces, edges, and vertices.



6c. Give the number of faces (as well as the shape of each face), edges, and vertices for a . . .

<i>tetrahedron</i>	<i>dodecahedron</i>	<i>icosahedron</i>
--------------------	---------------------	--------------------

Grade Five - Week Ten

<p>1a. Add or subtract the mixed numbers/fractions.</p> $\frac{1}{3} + \frac{1}{3} = \underline{\quad} \quad \frac{1}{5} + \frac{3}{5} = \underline{\quad} \quad \frac{8}{10} - \frac{3}{10} = \underline{\quad}$ $\frac{6}{4} + \frac{10}{4} = \underline{\quad} \quad 3\frac{1}{2} + 2\frac{1}{2} = \underline{\quad} \quad 9\frac{3}{4} - 5\frac{1}{4} = \underline{\quad}$ <p>2a. Convert the improper fraction to a mixed number, or vice versa.</p> $\frac{7}{4} = \underline{\quad} \quad \frac{12}{8} = \underline{\quad} \quad \frac{37}{9} = \underline{\quad}$ $2\frac{1}{8} = \underline{\quad} \quad 16\frac{3}{4} = \underline{\quad} \quad 27\frac{1}{5} = \underline{\quad}$ <p>3a. Add or subtract the mixed numbers/fractions.</p> $\frac{2}{3} + 6\frac{1}{2} = \underline{\quad} \quad \frac{1}{5} + 13\frac{4}{3} = \underline{\quad} \quad 17\frac{6}{5} + 12\frac{4}{3} = \underline{\quad}$ $3\frac{3}{5} - 4\frac{4}{5} = \underline{\quad} \quad 7\frac{5}{4} - 1\frac{7}{4} = \underline{\quad} \quad 1\frac{9}{3} - 13\frac{1}{3} = \underline{\quad}$	<p>2a. Place the following integers on the number line.</p> <p>1, $\bar{5}$, 4, $\bar{2}$, 6, $\bar{3}$, 7,</p>  <p>2b. Add.</p> $2 + \bar{3} = \underline{\quad} \quad \bar{4} + \bar{5} = \underline{\quad} \quad 5 + \bar{1} = \underline{\quad}$ $9 + \bar{7} = \underline{\quad} \quad \bar{6} + 12 = \underline{\quad} \quad \bar{8} + \bar{5} = \underline{\quad}$ <p>2c. 1. Subtract.</p> $6 - \bar{3} = \underline{\quad} \quad \bar{4} - 5 = \underline{\quad} \quad \bar{7} - \bar{8} = \underline{\quad}$ <p>2. Fill in the blanks to make the number sentences true.</p> $\underline{\quad} + 9 = \bar{17} \quad 16 + \underline{\quad} = \bar{4} \quad \underline{\quad} - 13 = 11$
<p>3. State whether the number sentences are true or false.</p> <p>a. $4 + 5 = 9$ $351 \div 9 = 38 \text{ R } 3$ $\frac{2}{3} + \frac{5}{3} = 2\frac{1}{3}$</p> <p>$1.9 + 2.1 = 4$ $8.2 - 5.61 = 2.69$ $3.36 \div 3 = 112$</p> <p>b. $2^3 = 6$ $y^4 = y * y * y * y$ $4.2 * 6.8 = 28.6$</p> <p>$\frac{3}{4} + \frac{1}{2} = \frac{4}{6}$ 30% of 50 = 15 $9 + (3 + 1)^2 = 25$</p> <p>c. $\sqrt{256} = 16$ $\frac{1}{3}$ of $\frac{1}{3} = \frac{1}{6}$ $8 - 2 * 3 = 2$</p> <p>$18 \div .5 = 9$ $6 - 4 \div 2 + 7 * 7 = 50$ $\bar{3} - \bar{16} = 13$</p>	<p>4. Use this lettered spinner to answer the questions below.</p>  <p>a. What is the probability of spinning a(n) . . .</p> <p style="text-align: center;">$a?$ $b?$ $c?$ $d?$ $e?$</p> <p>b. What is the probability of spinning a . . .</p> <p style="text-align: center;"><i>vowel?</i> <i>consonant?</i> <i>letter?</i> <i>number?</i></p> <p>c. What is the probability of spinning a(n) . . .</p> <p style="text-align: center;">a or $b?$ a or $c?$ a or $d?$ a or $e?$</p> <p style="text-align: center;">b or $c?$ b or $d?$ b or $e?$ c or $d?$</p> <p style="text-align: center;">d or $e?$</p>
<p>5. Solve the money number stories.</p> <p>a. In the bookstore you find a new series of mystery books that you have been wanting to read all summer. You would like to buy as many as you can afford, in order. The first five are specially priced at \$5.75 each (including tax), but the rest are \$7.45 (including tax). You have \$65.00 saved from your summer job and are willing to spend it all on these books. How many can you buy?</p> <p>b. You spot your best friend (who also has \$65.00 to spend) waiting in line – ready to purchase the same books! The two of you plan to share the books, splitting the cost in half. If you buy the odd numbered books and your friend buys the even, how many books are you able to buy together? What is the number of the last book <i>you</i> are able to purchase?</p> <p>c. After one month, your family (who sees how much you love reading these books) agrees to give you your birthday money early. You spend all \$40.00 on the books (still only buying the odd numbered books). If you now own 40% of the entire series, how many books are in the entire series?</p>	<p>6. Solve the following geometric problems.</p> <p style="text-align: center;"><i>translate = slide</i> <i>reflect = flip</i> <i>rotate = turn</i></p> <p>a. Draw the original polygon, then redraw showing a . . .</p> <ol style="list-style-type: none"> 1. <i>translation one inch to the right</i> (move each vertex one inch to the right) 2. <i>reflection vertically</i> 3. <i>reflection horizontally</i> 4. <i>rotation 90° clockwise</i>  <p>b. Describe the transformation performed on the polygons below.</p> <p style="text-align: center;"><i>original polygon = white</i> <i>after translation = gray</i></p>    <p>c. Revisit problem 3 in week nine where you plotted 3 polygons on a coordinate grid. On one of the polygons perform a translation, on another perform a rotation, and on the remaining polygon perform a reflection. Provide the new coordinate points for each polygon and plot each on a new coordinate grid.</p>

