

# Sixth Grade Spiraling Review

## Week 1 of First Six Weeks

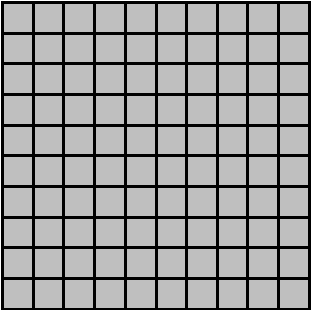
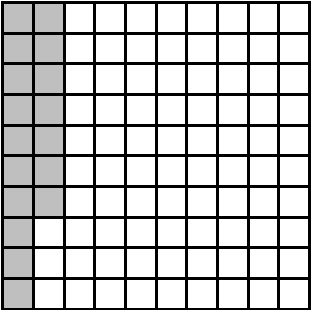
**Note: Record all work in your math journal.**

<b>Day 1</b>	<p>The chart below shows the populations of four different cities.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">City</th> <th style="padding: 5px;">Population</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Austin</td> <td style="padding: 5px;">656,562</td> </tr> <tr> <td style="padding: 5px;">Dallas</td> <td style="padding: 5px;">1,188,580</td> </tr> <tr> <td style="padding: 5px;">Houston</td> <td style="padding: 5px;">1,953,631</td> </tr> <tr> <td style="padding: 5px;">San Antonio</td> <td style="padding: 5px;">1,144,646</td> </tr> </tbody> </table> <p>a) Place the cities in order from least to greatest population. b) Find the difference between the least and greatest population.</p>	City	Population	Austin	656,562	Dallas	1,188,580	Houston	1,953,631	San Antonio	1,144,646
City	Population										
Austin	656,562										
Dallas	1,188,580										
Houston	1,953,631										
San Antonio	1,144,646										
<b>Day 2</b>	<p>Gina is baking cookies whose recipe uses 4 cups of sugar, 6 eggs, and <math>\frac{1}{2}</math> c. of milk.</p> <p>a) If Gina cuts the recipe in half, how much of each ingredient will she end up using?</p>										
<b>Day 3</b>	<p>a) Give an example and non-example of an improper fraction. b) Change your improper fraction to a mixed number. c) Explain the steps to change an improper fraction to a mixed number.</p>										
<b>Day 4</b>	<p>Susie says she ate <math>\frac{2}{3}</math> of a pizza. John said Susie ate <math>\frac{6}{9}</math> of the pizza.</p> <p>a) Is John's statement correct? b) Why or why not?</p>										
<b>Day 5</b>  <b>Use Calculators</b>	<p>a) Given <math>\frac{7}{11} + \frac{6}{11}</math>. How does each addend compare to <math>\frac{1}{2}</math>? b) Will the sum be less than 1? Greater than 1? Explain. c) Use a calculator to find the sum. Write the sum as an improper fraction and a mixed number. d) How does your estimate compare to the sum from the calculator?</p>										

# Sixth Grade Spiraling Review

## Week 2 of First Six Weeks

**Note: Record all work in your math journal.**

<b>Day 1</b>	<p>a) Draw a number line and place the following rational numbers on the line appropriately.</p> $\frac{3}{8}, \frac{7}{8}, \frac{3}{4} \text{ and } \frac{14}{16}$
<b>Day 2</b>	<p>Look at the picture below. Each large square has a value of 1.</p> <div style="display: flex; justify-content: center; gap: 20px; align-items: center;">   </div> <p>a) Name a decimal number that is represented by the picture. b) Name a fraction that is represented by the picture.</p>
<b>Day 3</b>	<p>a) Use a number line to compare <math>\frac{1}{2}</math> and <math>\frac{9}{16}</math>.</p> <p>b) Write an explanation to describe this relationship.</p>
<b>Day 4</b>	<p>Brody drew a line segment <math>2\frac{3}{8}</math> inches long. Caleb measured the same line segment and said it was <math>\frac{19}{16}</math> inches long.</p> <p>a) Explain whether Caleb's answer is correct or incorrect.</p>
<b>Day 5</b>  Use Calculators	<p>Put the following fractions into two groups, those less than <math>\frac{1}{2}</math>, and those greater than <math>\frac{1}{2}</math>.</p> $\frac{5}{7}, \frac{4}{9}, \frac{3}{5}, \frac{7}{16}, \frac{12}{11}, \frac{0}{4}$ <p>Use a calculator to check your answer.</p>

# Sixth Grade Spirling Review

## Week 3 of First Six Weeks

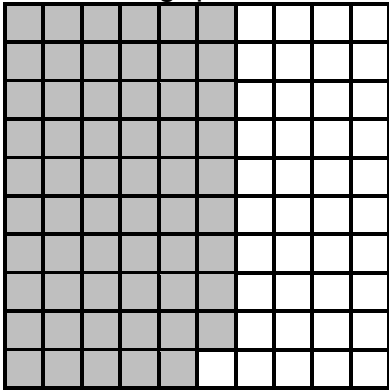
**Note: Record all work in your math journal.**

<b>Day 1</b>	<p>The local pizza place has a new promotion. You can win a free drink if you can draw three different pizza models that are equivalent to <math>\frac{5}{3}</math>.</p> <p>a) Draw three different pizza models that are equivalent to <math>\frac{5}{3}</math>.</p>
<b>Day 2</b>	<p>Susan got <math>\frac{16}{20}</math> problems correct on her math test.</p> <p>a) How would you write this fraction as a decimal?</p> <p>b) Explain two different ways you can write <math>\frac{16}{20}</math> as a decimal.</p>
<b>Day 3</b>	<p>Allyne said that she had <math>\frac{8}{5}</math> of pizzas left from the party. Billy said she had 1.3 pizzas left.</p> <p>a) Explain whether Billy's statement is correct or incorrect.</p>
<b>Day 4</b>	<p>Identify a real-life situation that represents each integer</p> <p>a) -27 b) 15 c) -150 d) 2</p>
<b>Day 5</b>  <b>Use Calculators</b>	<p>John said he got <math>\frac{3}{4}</math> of his test correct and his teacher said he got 0.75 of his test correct.</p> <p>a) Are <math>\frac{3}{4}</math> and 0.75 equivalent?</p> <p>b) Why or why not? Justify your answer.</p> <p>c) Use a calculator to prove your answer.</p>

# Sixth Grade Spiraling Review

## Week 4 of First Six Weeks

**Note: Record all work in your math journal.**

<b>Day 1</b>	<p>Use the diagram to answer the following questions.</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>a) Write the decimal represented.  b) Express the representation in words.  c) Write the fraction represented.</p>
<b>Day 2</b>	<p>Complete each comparison sentence using symbols (&gt;, &lt;, =). Explain your reasoning for each.</p> <p>a) <math>\frac{2}{6}</math> ○ 0.50      b) 0.6 ○ <math>\frac{4}{5}</math>      c) <math>\frac{3}{3}</math> ○ <math>\frac{6}{6}</math></p>
<b>Day 3</b>	<p>The thermometer in Austin, TX reads 98 °F on Monday. On Tuesday, it was 7 degrees warmer. On Wednesday it was 2 degrees colder than it was on Monday.</p> <p>a) Represent the change in temperature for Tuesday and Wednesday with an integer.  b) Use a number line to record the changes over the week.</p>
<b>Day 4</b>	<p>Write a comparison sentence for each of the following using symbols (&gt;, &lt;, =). Write the place value name used to compare the numbers.</p> <p>a) 1,873.989 ____ 1,783.989      Place Compared: _____  b) 355.01 ____ 355.1      Place Compared: _____  c) 87.254 ____ 87.245      Place Compared: _____  d) 20.406 ____ 20.46      Place Compared: _____</p>
<b>Day 5</b>  <b>Use Calculators</b>	<p>a) Write 1.25 as an improper fraction.  b) Explain the steps you used to change the decimal to an improper fraction.  c) Check your answer with a calculator.</p>

# Sixth Grade Spiraling Review

## Week 5 of First Six Weeks

**Note: Record all work in your math journal.**

<b>Day 1</b>	<p>a) Give an example and a non-example of a prime number.</p> <p>b) Give an example and a non-example of a composite number.</p> <p>c) Write definitions for both a prime number and a composite number.</p> <p>d) Is the number 1 prime? Explain.</p>
<b>Day 2</b>	<p>Mrs. Jones has 24 students in her class. She needs to divide her students into groups for a project.</p> <p>a) List all the different ways she could group her students.</p>
<b>Day 3</b>	<p>Cade is having a party for forty students at his school. The plates come in packages of 8, the napkins in packages of 10 and the forks in packages of 20. He told his mom to buy 5 packages of plates, 4 packages of napkins and 3 packages of forks.</p> <p>a) Did Cade tell his mother the correct number of packages to buy for each item? Explain why or why not.</p> <p>b) If Cade's mom bought 10 packages of each, what is the maximum number of students that could receive 1 fork, 1 plate, and 1 napkin? Explain your reasoning.</p>
<b>Day 4</b>	<p>a) Draw a factor tree showing all the prime factors of 325.</p> <p>b) Draw a factor tree showing all the prime factors for 208.</p> <p>c) Write the prime factors for 325 and 208 in exponential form.</p>
<b>Day 5</b>	<p>a) What is the least common multiple that Ralph can use to add fractions with denominators of 6, 12, and 18?</p> <p>b) Write a statement how you determined the least common multiple for 6, 12, and 18.</p>

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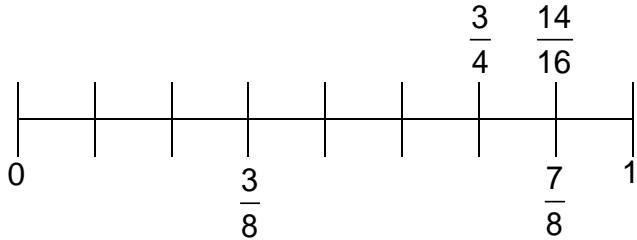
## First Six Weeks

### Answer Keys (pp. 1 of 4)

**Week 1 Answer Key: *Process may vary.***

Day 1	a) Austin, San Antonio, Dallas, Houston b) $1,953,631 - 656,562 = 1,297,069$
Day 2	a) 2 cups of sugar, 3 eggs, and $\frac{1}{4}$ c. up milk
Day 3	<i>Answers may vary.</i> a) Improper fraction: $\frac{5}{4}$ , not improper: $\frac{3}{4}$ b) $\frac{5}{4} = 1\frac{1}{4}$ c) Sample answer: First divide the numerator into the denominator. The quotient will become the whole number. The remainder is put back over the denominator to become the fractional part. Five $\frac{1}{4}$ 's $\rightarrow$ four $\frac{1}{4}$ 's make a whole and one $\frac{1}{4}$ left over.
Day 4	a) yes $\frac{2 \cdot 3}{3 \cdot 3} = \frac{6}{9}$ b) <i>Answers may vary.</i>
Day 5	a) Both are a little more than $\frac{1}{2}$ b) Since both of the addends are a little more than $\frac{1}{2}$ , the sum should be a little more than 1. c) $\frac{13}{11}$ and $1\frac{2}{11}$ d) $1\frac{2}{11}$ is a little more than 1

**Week 2 Answer Key: *Process may vary.***

Day 1	
Day 2	a) 1.17 b) $1\frac{17}{100}$ or $\frac{117}{100}$

# Sixth Grade Spiraling Review First Six Weeks

## Answer Keys (pp. 2 of 4)

### Week 2 Answer Key: (cont.) *Process may vary.*

Day 3	<p>a)</p> <div style="text-align: center; margin: 10px 0;"> </div> <p>b) One-half is equal to <math>\frac{8}{16}</math>, which is less than <math>\frac{9}{16}</math>.</p>
Day 4	<p>a) Caleb is incorrect because <math>2\frac{3}{8} = \frac{19}{8}</math></p>
Day 5	<p>Less than <math>\frac{1}{2}</math>: <math>\frac{4}{9}, \frac{7}{16}, \frac{0}{4}</math>                      Greater than <math>\frac{1}{2}</math>: <math>\frac{5}{7}, \frac{3}{5}, \frac{12}{11}</math></p>

### Week 3 Answer Key: *Process may vary*

Day 1	<p>a) <i>Answers may vary.</i></p> <div style="text-align: center; margin: 10px 0;"> </div>
Day 2	<p>a) 0.8 b) <math>\frac{16}{20} = \frac{80}{100} = 0.8</math> or 16 divided by 20 = 0.8</p>
Day 3	<p>a) <math>\frac{8}{5} = 1\frac{3}{5} = 1\frac{6}{10} = 1.6</math>, so 1.3 is not a correct statement</p>
Day 4	<p><i>Answers may vary.</i></p> <p>a) 27 degrees below zero b) a gain of 15 yards c) a withdrawal of \$150 d) 2 feet above sea level</p>
Day 5	<p>a) Yes, the numbers are equivalent. b) <math>0.75 = \frac{75}{100} = \frac{75 \div 25}{100 \div 25} = \frac{3}{4}</math> c) See student work.</p>

# Sixth Grade Spiraling Review First Six Weeks

## Answer Keys (pp. 3 of 4)

### Week 4 Answer Key: *Process may vary.*

Day 1	a) 0.59 b) fifty-nine hundredths c) $\frac{59}{100}$
Day 2	a) $\frac{2}{6} < 0.50$ ; $0.50 = \frac{1}{2} = \frac{3}{6}$ b) $0.6 < \frac{4}{5}$ ; $0.6 = \frac{6}{10} = \frac{3}{5}$ c) $\frac{3}{3} = \frac{6}{6}$ ; $\frac{3}{3}$ and $\frac{6}{6}$ both are equal to 1
Day 3	a) Tuesday: 7; Wednesday: -2 b) <div style="text-align: center; margin-top: 10px;"> </div>
Day 4	a) $1,873.989 > 1,783.989 \rightarrow$ Place Compared: <u>hundreds</u> b) $355.01 < 355.1 \rightarrow$ Place Compared: <u>tenths</u> c) $87.254 > 87.245 \rightarrow$ Place Compared: <u>hundredths</u> d) $20.406 < 20.46 \rightarrow$ Place Compared: <u>hundredths</u>
Day 5	a) $1\frac{25}{100} = 1\frac{1}{4} = \frac{5}{4} = \frac{125}{100}$ b) Sample answer: Multiply the denominator by the whole number and add the numerator to the product. c) See student work.

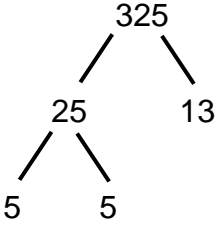
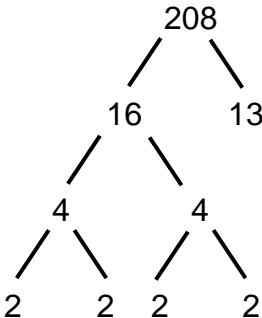


# Sixth Grade Spiraling Review

## First Six Weeks

### Answer Keys (pp. 4 of 4)

#### Week 5 Answer Key: *Process may vary.*

Day 1	<p>a) <i>Answers may vary.</i></p> <p>b) <i>Answers may vary.</i></p> <p>c) Prime number- a number with exactly two unique positive integer factors: 1 and the number. Composite number- a number with more than two unique positive integer factors.</p> <p>c) The number 1 is not prime because the definition says exactly two unique positive factors. 1 only has one unique positive integer factor.</p>
Day 2	1 group of 24, 2 groups of 12, 3 groups of 8, 4 groups of 6, 6 groups of 4, 8 groups of 3, 12 groups of 2, 24 groups of 1
Day 3	<p>a) No; <i>Answers may vary.</i></p> <p>b) 80 students; Ten packages would yield 80 plates, 100 napkins, and 200 forks, but the smaller number would determine the number of students.</p>
Day 4	<p>a) Factor tree for 325</p> <div style="text-align: center;">  <pre> graph TD     325 --- 25     325 --- 13     25 --- 5     25 --- 5         </pre> </div> <p>b) Factor tree for 208</p> <div style="text-align: center;">  <pre> graph TD     208 --- 16     208 --- 13     16 --- 4     16 --- 4     4 --- 2     4 --- 2     4 --- 2     4 --- 2         </pre> </div> <p>c) <math>325 = 5^2 \times 13</math>; <math>208 = 2^4 \times 13</math></p>
Day 5	<p>a) 36</p> <p>b) <i>Answers may vary.</i></p>