

Sixth Grade Spiraling Review

Week 1 of Second Six Weeks

Note: Record all work in your math journal.

Day 1	<p>Scott bought fruit for a baseball tournament. The table shows the amount of each type of fruit he bought.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Type of Fruit</th> <th style="padding: 5px;">Amount (lb)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Peaches</td> <td style="padding: 5px;">$3\frac{2}{5}$</td> </tr> <tr> <td style="padding: 5px;">Apples</td> <td style="padding: 5px;">$\frac{19}{6}$</td> </tr> <tr> <td style="padding: 5px;">Bananas</td> <td style="padding: 5px;">$\frac{9}{5}$</td> </tr> <tr> <td style="padding: 5px;">Oranges</td> <td style="padding: 5px;">$2\frac{3}{8}$</td> </tr> </tbody> </table> <p style="margin-top: 10px;">a) Place the fruits in order from least amount to greatest. b) Explain the process you used to order the numbers.</p>	Type of Fruit	Amount (lb)	Peaches	$3\frac{2}{5}$	Apples	$\frac{19}{6}$	Bananas	$\frac{9}{5}$	Oranges	$2\frac{3}{8}$
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Day 2	<p>a) Describe how multiples, common multiples, and least common multiples are the same and how they are different.</p>										
Day 3	<p>In Mrs. Jones' class, a prize is awarded to the person whose ticket number is the greatest common factor of 12, 24, and 48. Charlene has ticket number 6. Charlene stated she has the winning ticket.</p> <p>a) Is she correct? b) Justify your answer.</p>										
Day 4	<p>Kevin and his best friend, Pedro, are going to the movies and decide to combine their money together. Kevin has \$8.85, and Pedro has \$12.32.</p> <p>a) What is the sum of these quantities? b) What is the difference in the amount of money each boy has?</p>										
Day 5	<p>a) Express $\frac{3}{5}$ as a decimal.</p> <p>b) Explain the process you used to convert this fraction to a decimal.</p> <p>c) Name a fraction that is greater than $\frac{3}{5}$ and less than $\frac{3}{5}$.</p>										

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Week 2 of Second Six Weeks

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Day 1	<p>The Party Room charges \$50 to have a party, plus \$3 per person.</p> <p>a) If Tristan wants to have a party with 23 people, how much will The Party Room charge him? Justify your response.</p>										
Day 2	<p>a) Write a statement to describe how you would explain $\frac{5}{9}$ is less than $\frac{2}{3}$.</p>										
Day 3	<p>Chandler's teacher wrote the following expression on the board.</p> $2 \times (15 + 9) - 6 \div 3.$ <p>Chandler evaluated the expression and got 46 for his answer.</p> <p>a) Is Chandler correct? Justify your response.</p>										
Day 4	<p>a) Use the given numbers and symbols (one per square) in the empty squares below, so when evaluated the resulting expression has a value of 10.</p> <p style="text-align: center;">5, 4, 3, 2, \div, +, \times</p> <p style="text-align: center;">(<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>) <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></p> <p>b) Describe how you determined where to put the numbers and symbols.</p>										
Day 5	<p>The top 4 times in the 100 meter dash were recorded in the table below:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Student</th> <th style="padding: 5px;">Time (seconds)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">K. Doumakes</td> <td style="padding: 5px;">10.72</td> </tr> <tr> <td style="padding: 5px;">N. Brewer</td> <td style="padding: 5px;">11.23</td> </tr> <tr> <td style="padding: 5px;">E. Repp</td> <td style="padding: 5px;">11.1</td> </tr> <tr> <td style="padding: 5px;">M. Moore</td> <td style="padding: 5px;">10.9</td> </tr> </tbody> </table> <p>a) Place the times in order from fastest to slowest. b) Who won the race?</p>	Student	Time (seconds)	K. Doumakes	10.72	N. Brewer	11.23	E. Repp	11.1	M. Moore	10.9
Student	Time (seconds)										
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Week 3 of Second Six Weeks

Note: Record all work in your math journal.

Day 1	<p>Mary, Ronald, and Shelia went to the pizza buffet. Mary ate $\frac{2}{9}$ of a pizza, Ronald ate $\frac{5}{9}$ of a pizza, and Shelia ate $\frac{4}{9}$ of a pizza.</p> <p>a) How much pizza did they eat altogether? Justify your response.</p>
Day 2	<p>Jesus and his mother are going back to school shopping. Jesus found shirts originally priced at \$34.00 each, on sale for \$6.75 off the original price, and pants originally \$28.00 each, on sale for \$3.30 off.</p> <p>a) If they purchased three shirts and one pair of pants at the sale prices, what would their total be? b) If Jesus' mother brought \$150.00 to spend, what will be the change she receives when she pays the clerk?</p>
Day 3	<p>Jerry walked $\frac{5}{8}$ of a mile and his sister walked $\frac{5}{6}$ of a mile.</p> <p>a) Estimate approximately how far they walked together. Justify your response.</p>
Day 4	<p>Carl ran $2\frac{2}{3}$ miles, and his brother ran $\frac{13}{5}$ miles. Carl said he ran 1 mile farther than his brother.</p> <p>a) Is Carl's statement correct? Justify your response.</p>
Day 5	<p>Braden wants to order a new baseball bat. When he ordered the bat, the shipping charge was \$1.00 for every \$5.00 spent.</p> <p>a) Use color tiles to create a model of the ratio between the amount for shipping and the amount spent. Draw a diagram of your model. b) How much would Braden spend on shipping if his bat cost \$25.00? c) What would be the total cost of Braden's order?</p>

Sixth Grade Spiraling Review

Week 4 of Second Six Weeks

Note: Record all work in your math journal.

Day 1	<p>Write <, =, or > between each pair of rational numbers. Write a statement describing how you determined what symbol to place between each pair of rational numbers.</p> <p>a) $\frac{5}{7}$ _____ $\frac{5}{6}$</p> <p>b) 2.2 _____ $2\frac{1}{5}$</p> <p>c) $3\frac{3}{4}$ _____ $\frac{28}{8}$</p>
Day 2	<p>Julienne is the team's star basketball player. Her average throughout the season has been 7 made shots out of every 10 taken.</p> <p>a) If in the last game, she took 30 shots, how many should she have made?</p> <p>b) How would this value be represented as a decimal?</p> <p>c) How would this value be represented as a fraction?</p>
Day 3	<p>The ratio of boys to girls at the skating rink is 4:3.</p> <p>a) What are two other ways of representing this ratio?</p> <p>b) Give two examples of the possible number of boys and girls at the skating rink.</p>
Day 4	<p>Patrick has a pit bull that eats 2 bags of dog food every 15 days.</p> <p>a) Approximately how many bags of dog food would Patrick have to buy in 50 days?</p>
Day 5	<p>Susie made a rectangular table cloth that was 6.35 inches wide by 8.2 inches long. She wants to put a lace border around the table cloth.</p> <p>a) How much lace does Susie need? Justify your response.</p> <p>b) What is the mathematical term used to represent this problem situation?</p> <p>c) What formula is used to calculate this term for a rectangle?</p>

Sixth Grade Spiraling Review

Week 5 of Second Six Weeks

Advanced Preparation: Color tiles

Note: Record all work in your math journal.

Day 1	<p>Donna and her best friend are making bracelets. The girls combined can make 34 bracelets in 60 minutes.</p> <p>a) How many bracelets would they make in $\frac{1}{2}$ hour? b) If the girls worked for 5 hours, how many bracelets would they make?</p>
Day 2	<p>Ralph bought a board that was $6\frac{1}{8}$ feet long. He cut $2\frac{1}{4}$ feet off for a ramp.</p> <p>a) How much board does he have left?</p>
Day 3	<p>The Texas Smash hit 24 baseballs. The Texas Chargers caught 5 of every 8 baseballs hit. The Chargers said they caught 17 of the baseballs.</p> <p>a) Are the Chargers correct? Justify your response.</p>
Day 4	<p>Veronica ran 59 minutes, Vicki ran $\frac{3}{4}$ of an hour, and Sandy ran 70 minutes.</p> <p>a) Place the amount of time the girls ran in order from greatest to least. Justify your response. b) Who ran the longest amount of time? Justify your response.</p>
Day 5	<p>There are 78 cyclists at the park.</p> <p>a) If the ratio of cyclists to skaters is 3 to 1, how many skaters are at the park? Justify your response.</p>

Sixth Grade Spirling Review

Second Six Weeks

Answer Keys (pp. 1 of 3)

Week 1 Answer Key: *Process may vary.*

Day 1	<p>Scott bought fruit for a baseball tournament. The table shows the amount of each type of fruit he bought.</p> <p>a) bananas: $\frac{9}{5} = 1\frac{4}{5}$, oranges: $2\frac{3}{8}$, apples: $\frac{19}{6} = 3\frac{1}{6}$, peaches: $3\frac{2}{5} \rightarrow \frac{9}{5}, 2\frac{3}{8}, \frac{19}{6}, 3\frac{2}{5}$</p> <p>b) Write each fraction as a mixed number and compare whole numbers and then compare fraction parts.</p>
Day 2	<p><i>Answers may vary.</i></p> <p>a) Multiples are products of a natural number and another natural number. Example: multiples of 6 $\rightarrow 6 \times 1 = 6, 6 \times 2 = 12, 6 \times 3 = 18$, etc. Common multiples are the common products for two or more given natural numbers. Example: common multiples of 2 and 4 $\rightarrow 2 \times 1 = 2, 2 \times 2 = 4, 2 \times 3 = 6, 2 \times 4 = 8$, etc. $4 \times 1 = 4, 4 \times 2 = 8, 4 \times 3 = 12, 4 \times 4 = 16$, etc. The common multiples are 4, 8, etc. Least common multiples are the smallest common products for two or more given natural number numbers. Example: least common multiple of 2 and 4 is 4.</p>
Day 3	<p>a) No. Greatest common factor is 12.</p> <p>b) Factors of 12: 1, 2, 3, 4, 6, 12; Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24; Factors of 48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48.</p>
Day 4	<p>a) $12.32 + 8.85 = 21.17$</p> <p>b) $12.32 - 8.85 = 3.47$</p>
Day 5	<p>a) $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10} = 0.6$</p> <p>b) Write $\frac{3}{5}$ as an equivalent fraction with a denominator of 10 and write in decimal and form.</p> <p>c) <i>Answers may vary.</i></p>

Week 2 Answer Key: *Process may vary.*

Day 1	<p>a) Party Room Charges = $50 + (3 \times \text{number of people})$ $50 + (3 \times 23) = 50 + 69 = \\119</p>
Day 2	<p><i>Answers may vary.</i></p> <p>a) Convert so there is a common denominator of 9: $\frac{5}{9}$ and $\frac{2}{3} \times \frac{3}{3} = \frac{6}{9}$ and then compare the numerators.</p>

Sixth Grade Spiraling Review

Second Six Weeks

Answer Keys (pp. 2 of 3)

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

Day 3	<p>a) Yes. Evaluate the expression using the correct order of operations:</p> $2 \times (15 + 9) - 6 \div 3$ <p style="margin-left: 20px;">Operation in parentheses first so add 15 + 9</p> $= 2 \times 24 - 6 \div 3$ <p style="margin-left: 20px;">Multiply and divide in order from left to right so multiply 2 x 24</p> $= 48 - 6 \div 3$ <p style="margin-left: 20px;">Divide 6 ÷ 3</p> $= 48 - 2$ <p style="margin-left: 20px;">Subtract remaining numbers</p> $= 46$
Day 4	<p>a) 5, 4, 3, 2, ÷, +, x</p> <div style="display: flex; align-items: center; justify-content: center; gap: 20px; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px;">(</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">4</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">+</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">2</div> <div style="border: 1px solid black; padding: 5px;">)</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">÷</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">3</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">x</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">5</div> </div> <p style="margin-top: 10px;">b) I saw a multiplication symbol and knew $5 \times 2 = 10$. I decided to try and find a way to get the factor 2 using the digits 4, 3, and 2 and the symbols + and ÷.</p>
Day 5	<p>a) 10.72, 10.9, 11.1, 11.23</p> <p>b) K. Doumakes</p>

Week 3 Answer Key: *Process may vary.*

Day 1	<p>a) $\frac{2}{9} + \frac{5}{9} + \frac{4}{9} = \frac{11}{9} = 1\frac{2}{9}$; Since the denominators were the same, the numerators were added. The result was converted to a mixed number. They ate one whole pizza and $\frac{2}{9}$ of another pizza.</p>
Day 2	<p>a) $(34.00 - 6.75) = \\$27.25$ $(28.00 - 3.30) = \\$24.70$ $(27.25 + 27.25 + 27.25 + 24.70) = \\106.45</p> <p>b) $\\$150 - \\$106.45 = \\$43.55$</p>
Day 3	<p>a) The first fraction is slightly greater than $\frac{1}{2}$, and the second fraction is slightly less than 1. $\frac{5}{8}$ is $\frac{1}{8}$ more than $\frac{1}{2}$ and $\frac{5}{6}$ is $\frac{1}{6}$ less than 1. Therefore the sum of $\frac{5}{8}$ and $\frac{5}{6}$ is close to $1\frac{1}{2}$.</p>
Day 4	<p>a) No: $\frac{13}{5} = 2\frac{3}{5}$ and when you subtract the whole numbers, the difference will be less than 1. $2\frac{2}{3} - 2\frac{3}{5} = 2\frac{2}{3} - 2\frac{3}{5} = 2\frac{10}{15} - 2\frac{9}{15} = \frac{1}{15}$</p>
Day 5	<p>a) = \$1 shipping = \$5 spent</p> <p>b) $\\$1 \times (\\$25 \div \\$5) = \\5 He would spend \$5 to ship the \$25 bat.</p> <p>c) $\\$25$ for the bat + \$5 shipping fee = \$30 total</p>

Sixth Grade Spirling Review

Second Six Weeks

Answer Keys (pp. 3 of 3)

Week 4 Answer Key: *Process may vary.*

Day 1	<p>Write <, =, or > between each pair of rational numbers. Write a statement describing how you determined what symbol to place between each pair of rational numbers.</p> <p>a) $\frac{5}{7} < \frac{5}{6}$: Both have the same numerator and sixths are larger than sevenths.</p> <p>b) $2.2 = 2\frac{1}{5}$: $\frac{1}{5} = 0.2$, therefore $2\frac{1}{5} = 2.2$</p> <p>c) $3\frac{3}{4} > \frac{28}{8}$: $\frac{28}{8} = 3\frac{4}{8} = 3\frac{1}{2}$ and $\frac{3}{4} > \frac{1}{2}$</p>
Day 2	<p>a) 7:10 and x:30; If $10 \times 3 = 30$, then $7 \times 3 = 21$ shots</p> <p>b) .7</p> <p>c) $\frac{7}{10}$</p>
Day 3	<p>a) 4 to 3; $\frac{4}{3}$</p> <p>b) <i>Answers may vary.</i> 8:6; 12:9; etc.</p>
Day 4	<p>a) 2:15 and x:50; If 15×3.34 (approximately) is 50.1, then $2 \times 3.34 = 6.68$, so Patrick would have to buy 7 bags of dog food.</p>
Day 5	<p>a) $6.35 + 6.35 + 8.2 + 8.2 = 29.1$</p> <p>b) Perimeter is the distance around the rectangle.</p> <p>c) $P = 2l + 2w$ or $P = 2(l + w)$</p>

Week 5 Answer Key: *Process may vary.*

Day 1	<p>a) 17 bracelets; $34 \div 2 = 17$</p> <p>b) 34:60 and x:300; If $60 \times 5 = 300$, then $34 \times 5 = 170$ bracelets</p>
Day 2	<p>a) $6\frac{1}{8} - 2\frac{1}{4} = 3\frac{7}{8}$</p>
Day 3	<p>a) No: $\frac{5}{8} = \frac{?}{24}$; ? = 15; <i>Answers may vary.</i></p>
Day 4	<p>a) Greatest to least: 70 minutes, 59 minutes, $\frac{3}{4}$ of 60 minutes = 45 minutes</p> <p>b) Sandy ran the longest since 70 minutes > 59 minutes > 45 minutes</p>
Day 5	<p>a) $\frac{\text{cyclists}}{\text{skaters}} = \frac{3}{1} = \frac{78}{?}$; ? = 26 skaters; $\frac{3}{1} \times \frac{26}{26} = \frac{78}{26}$</p>