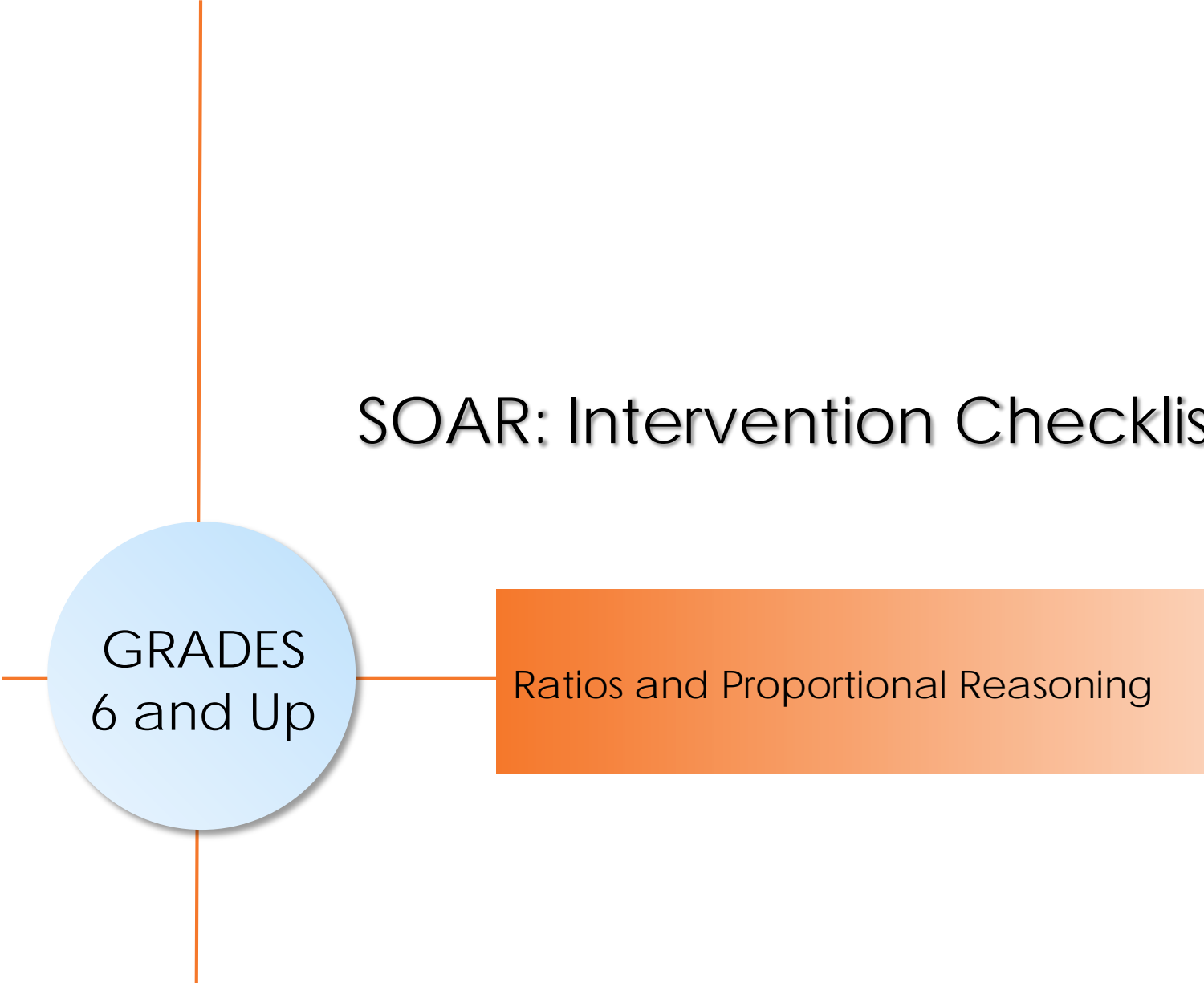


# SOAR: Intervention Checklist




GRADES  
6 and Up

Ratios and Proportional Reasoning



<b>1. Write a Ratio Described in a Context Problems</b>			
<b>Category I</b>	<b>1a. Simple Ratio</b> <i>There are 4 elephants at the zoo. What is the ratio of the elephants' ears to the elephants' eyes?</i>	<b>1b. Rate</b> <i>After 10 minutes, you notice that you have walked 7 laps. What is the rate at which you are walking?</i>	<b>1c. Percent</b> <i>40% of the pizzas sold at Speedy's Pizzeria are pepperoni pizzas. What is the ratio of pepperoni pizzas to all pizzas sold at Speedy's Pizzeria?</i>
<b>Makes Sense</b>	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined
<b>Creates Representations</b>	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Creates a table	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Makes a tape diagram <input type="checkbox"/> Constructs a double number line <input type="checkbox"/> Creates a table <input type="checkbox"/> Makes use of a calculator	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Makes a tape diagram <input type="checkbox"/> Constructs a double number line <input type="checkbox"/> Creates a table <input type="checkbox"/> Makes use of a calculator <input type="checkbox"/> Writes a known fact <input type="checkbox"/> Writes a proportion
<b>Uses a Reliable Strategy</b>	<input type="checkbox"/> Shows/draws 8 ears and 8 eyes (may use 4 ears and 4 eyes, 2 ears and 2 eyes, or 1 ear and 1 eye) <input type="checkbox"/> Uses repeated addition ( $2 + 2 + 2 + 2$ ) <input type="checkbox"/> Uses multiplication ( $4 \times 2$ ) to count ears and/or eyes; may say that the number of ears is the same as the number of eyes	<input type="checkbox"/> Uses repeated addition; adds tens until reaching 60, then adds six 7s repeatedly <input type="checkbox"/> Uses multiplication ( $6 \times ? = 60$ ) or division ( $60 \div 10$ ) to find the number of 10-minute "chunks;" then multiplies $6 \times 7$ to find laps per hour	<input type="checkbox"/> Shows/draws a rectangle into 2 pieces, one just under half, the other just over half of the figure <input type="checkbox"/> Uses known facts, $40\% = \frac{40}{100}$ <input type="checkbox"/> Uses a calculator to change 40% into a fraction
<b>Provides Explanation</b>	<input type="checkbox"/> Identifies the meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Uses "to" or "of"	<input type="checkbox"/> Identifies the meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Uses "to" or "of" <input type="checkbox"/> Uses fraction notation	<input type="checkbox"/> Identifies the meaning of the ratio. <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Uses "to" or "of" <input type="checkbox"/> Identifies meaning of x



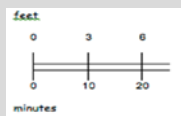
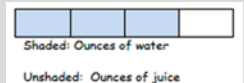
To look across all 8 items of Category I, affix page 2 of the Category I checklist here.

Category I	<b>2. Given Part:Part, Requires Part:Whole Problem</b> <i>Ricardo notices that the ratio of red houses (light grey) to blue houses (dark grey) on his street can be represented with the diagram below.</i>  <i>If Ricardo's street has 20 houses and all are either red or blue, how many houses on his street are blue?</i>	<b>3. Given Part:Whole, Requires Part:Part Problem</b> <i>In Sarah's class, 1 out of 5 students did not turn in homework on Tuesday. If there are 30 students in Sarah's class on Tuesday, how many students did turn in homework?</i>	<b>4. Unit Rate or Price Problem</b> <i>You need to buy 24 cupcakes for your party tonight. You have \$6.00. Cindy's Bakery sells 3 cupcakes for \$1.00. Do you have enough money to buy 24 cupcakes? Explain why or why not.</i>
Makes Sense	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined
Creates Representations	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Makes a tape diagram <input type="checkbox"/> Constructs a double number line <input type="checkbox"/> Creates a table <input type="checkbox"/> Writes a proportion	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Makes a tape diagram <input type="checkbox"/> Constructs a double number line <input type="checkbox"/> Creates a table <input type="checkbox"/> Writes a proportion	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Makes a tape diagram <input type="checkbox"/> Constructs a double number line <input type="checkbox"/> Creates a table <input type="checkbox"/> Writes a proportion
Uses a Reliable Strategy	<input type="checkbox"/> Shows/draws iterations of the ratio 2:5 until 8:20 is represented <input type="checkbox"/> Uses repeated addition <input type="checkbox"/> Uses multiplication <input type="checkbox"/> Scales the ratio up or down <input type="checkbox"/> Uses cross multiplication to determine equivalent ratios $\frac{2}{5} = \frac{4(2)}{4(5)} = \frac{8}{20}$ <input type="checkbox"/> Writes a proportion	<input type="checkbox"/> Shows/draws iterations of 5 students until reaching 30, notes that 6 students did not do homework. <input type="checkbox"/> Uses repeated addition <input type="checkbox"/> Uses multiplication <input type="checkbox"/> Scales the ratio up or down <input type="checkbox"/> Uses cross multiplication to determine equivalent ratios to form equivalent ratios <input type="checkbox"/> Writes a proportion and cross-multiplies	<input type="checkbox"/> Shows/draws iterations of sets of 3 cupcakes until reaching 24; notes there are 8 sets, so \$8 <input type="checkbox"/> Shows/draws iterations of sets of 3 cupcakes, noting each costs \$1, until reaching \$6; notes there are 6 sets, so 18 cupcakes <input type="checkbox"/> Uses repeated addition <input type="checkbox"/> Scales the ratio up or down; may scale up to $\frac{18}{6}$ ; \$6 (3 cupcakes per dollar) = 18 cupcakes <input type="checkbox"/> Uses cross multiplication to determine equivalent ratios $\frac{1}{3} = \frac{x}{24}$ or division $24 \div 3 = 8$ sets of 3 <input type="checkbox"/> Uses cross multiplication to determine equivalent ratios $\frac{3}{1} = \frac{3(8)}{1(8)} = \frac{24}{8}$ ; or 8 (\$1 per 3 cupcakes) = \$24
Provides Explanation	<input type="checkbox"/> Identifies meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Explains the meaning of a proportional relationship <input type="checkbox"/> Identifies meaning of x	<input type="checkbox"/> Identifies meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Explains the meaning of a proportional relationship <input type="checkbox"/> Identifies meaning of x	<input type="checkbox"/> Identifies meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Explains the meaning of a proportional relationship <input type="checkbox"/> Discusses equivalent ratios <input type="checkbox"/> Identifies the meaning of x

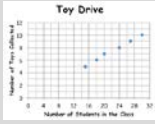
To look across all 8 items of Category I, affix page 3 of the Category I checklist here.

Category I	5. Constant Speed Problem	6. Measurement Conversion Problem	7. Percent Problem
	<p><i>Mr. Smith rides a motorcycle to school each day. He travels at a rate of 30 miles per hour.</i></p> <p>a. How long does it take him to get to school if the distance he travels is 10 miles?</p> <p>b. At that rate, how far will he be able to travel in 4 hours?</p>	<p><i>A map is drawn using a scale of 150 kilometers to 3 centimeters. The distance between Pittsburgh and Philadelphia is 500 kilometers. How far apart will the two cities be on the map?</i></p>	<p><i>20% of the pizzas that Speedy Pizza Shop sells are sausage pizzas.</i></p> <p>a. What is the ratio of sausage pizzas to all the pizzas sold today?</p> <p>b. If the pizza shop sells 45 pizzas, how many of them are sausage?</p>
Makes Sense	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined	<input type="checkbox"/> Restates the problem accurately <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Identifies what is to be determined
Creates Representations	<input type="checkbox"/> Creates a table <input type="checkbox"/> Writes a proportion	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Makes a tape diagram; labels the scales appropriately <input type="checkbox"/> Constructs a double number line (or single number lines with different scales on each side) <input type="checkbox"/> Creates a table <input type="checkbox"/> Writes a proportion <input type="checkbox"/> May use "to," ":", or "/" notation <input type="checkbox"/> Makes use of a calculator	<input type="checkbox"/> Makes a drawing <input type="checkbox"/> Writes a proportion, $\frac{20}{100} = \frac{x}{45}$ <input type="checkbox"/> Represents the percent as a ratio using "to," ":", or "/" or represents it using decimal notation
Uses a Reliable Strategy	<input type="checkbox"/> Shows/draw iterations of the ratio <input type="checkbox"/> Draws a tape diagram and partitions it into thirds or copies it 3 times to represent 4 hours <input type="checkbox"/> Creates a double number <input type="checkbox"/> Scales the ratio up or down; divides both parts by 3 (scaling down) or multiplies both parts by 4 (scaling up) <input type="checkbox"/> Uses cross multiplication to form equivalent ratios $\frac{30}{1} = \frac{10}{x}$ or $\frac{30}{1} = \frac{x}{4}$	<input type="checkbox"/> Shows/draws iterations of the ratio <input type="checkbox"/> Uses a double (or single) number line <input type="checkbox"/> Draws a tape diagram, with both scales labeled; partitions the diagram to determine the unit distance (per cm) and then iterates or multiplies to determine distance in cm between the cities <input type="checkbox"/> Scales the ratio up or down; 50:1; 500:10; 650:13 <input type="checkbox"/> Uses cross multiplication to determine equivalent ratios to form equivalent ratios, $\frac{150}{3} = \frac{500}{x}$ or $\frac{150}{1} = \frac{650}{x}$	<input type="checkbox"/> Shows/draws iterations of the ratio; Shows/draws a double number line to represent the ratio 20:100 and ? :45; labels the numbers appropriately <input type="checkbox"/> Creates a double number line; partitions 100% into 5 equal parts; partitions 45 pizzas into 5 equal parts to determine that 9 pizzas are sausage pizzas <input type="checkbox"/> Scales the ratio down to find the unit ratio 1:5 and then scales up to obtain 9:45 (explains that these are equivalent ratios) <input type="checkbox"/> Uses cross multiplication to determine equivalent ratio $\frac{20}{100} = \frac{x}{45}$ <input type="checkbox"/> Creates a grid (perhaps 9 x 5) to represent the 45 pizzas sold and shades 1 out of every 5 cells to represent the sausage pizzas
Provides Explanation	<input type="checkbox"/> Identifies meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Explains the meaning of a proportional relationship <input type="checkbox"/> Identifies the meaning of x <input type="checkbox"/> Discusses equivalent ratios	<input type="checkbox"/> Identifies meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Explains the meaning of a proportional relationship <input type="checkbox"/> Identifies the meaning of x <input type="checkbox"/> Discusses equivalent ratios	<input type="checkbox"/> Identifies meaning of the ratio <input type="checkbox"/> Identifies the multiplicative relationship/number of iterations <input type="checkbox"/> Explains the meaning of a proportional relationship <input type="checkbox"/> Identifies the meaning of x <input type="checkbox"/> Discusses equivalent ratios

To look across all 8 items of Category I, affix page 4 of the Category I checklist here.

		<b>8. Recognizing Ratios in Models Problems</b>				
<b>Category I</b>	<b>8a. Parts Represented in Picture Form</b> <i>What ratio is modeled in the diagram below? Explain in words how you made your decision.</i>	<b>8b. Parts Represented in Tape Diagram</b> <i>What ratio is modeled in the diagram below? Explain in words how you made your decision.</i>	<b>8c. Parts Represented in Double-Number Line</b> <i>What ratio is modeled in the diagram below? Explain in words how you made your decision.</i>	<b>8d. Part and Whole Represented in Table</b> <i>What ratio is modeled in the diagram below? Explain in words how you made your decision.</i>		
						
	<b>Connects Ratios to Visual Models</b>	<input type="checkbox"/> States that s/he needs to find the ratio <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Writes 3:5, 5:3, 3:8, 5:8, May invert ratios <input type="checkbox"/> May use "to" or fraction notation	<input type="checkbox"/> States that s/he needs to find the ratio <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Writes 7:5, May invert ratios <input type="checkbox"/> May use "to" or fraction notation; may orally use "for each," "for every," etc.	<input type="checkbox"/> States that s/he needs to find the ratio <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Writes 3:10 or 6:20, May invert ratios <input type="checkbox"/> May use "to" or fraction notation; may orally use "for each," "for every," etc.	<input type="checkbox"/> States that s/he needs to find the ratio <input type="checkbox"/> Recognizes information given in the problem <input type="checkbox"/> Writes 3:1 or 1:3, 3:4 or 4:3 <input type="checkbox"/> May use "to" or fraction notation; may orally use "for each," "for every," etc.	
<b>Identifies Meaning of Ratio</b>	States the following: <i>(Note whether student chooses part:part or part:whole ratio.)</i>  <input type="checkbox"/> There are 3 diamonds and 5 triangles (3:5) <input type="checkbox"/> There are 3 diamonds and 8 symbols (3:8) <input type="checkbox"/> There are 5 triangles and 8 symbols (5:8)  Note: May invert ratios and describe correctly.	States the following:  <input type="checkbox"/> There are 7 gallons of lime paint for every 5 gallons of peach paint  Note: May invert ratios and describe correctly.	States the following:  <input type="checkbox"/> 3 feet per 10 minutes <input type="checkbox"/> 6 feet in every 20 minutes <input type="checkbox"/> 3 (or 6) represents feet; 10 (or 20) represents time in minutes  Note: May invert ratios and describe correctly.	States the following: <i>(Note whether student chooses part:part or part:whole ratio.)</i>  <input type="checkbox"/> 3 ounces of water for each ounce of juice (3:1) <input type="checkbox"/> 1 ounce of juice for every 3 ounces of water (1:3) <input type="checkbox"/> 3 ounces of water for every 4 ounces of mix (3:4) <input type="checkbox"/> 1 ounce of juice for every 4 ounces of mix (1:4)  Note: May invert ratios and describe correctly.		

Category II	<p><b>9. Test for Proportionality Problem</b>  <i>The table (below) contains ticket-buying data from 3 different classrooms. Is the relationship between the number of students who purchased tickets to the school dance and the total number of students in the class a proportional relationship? Justify your answer.</i></p> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th></th> <th>Class A</th> <th>Class B</th> <th>Class C</th> </tr> </thead> <tbody> <tr> <td>Students who Purchased Tickets</td> <td>18</td> <td>24</td> <td>15</td> </tr> <tr> <td>Total Number of Students</td> <td>24</td> <td>32</td> <td>20</td> </tr> </tbody> </table>		Class A	Class B	Class C	Students who Purchased Tickets	18	24	15	Total Number of Students	24	32	20	<p><b>10. Unit Rate or Constant of Proportionality Problem</b>  <i>Trent gets thirsty when he mows lawns. He often buys 6 bottles of sports drink for \$9.36.</i></p> <p>a. <i>At that price, how much does Trent pay for 1 bottle of sports drink?</i>                      b. <i>If Trent wants to buy 21 bottles of sports drink, how much money will he need?</i>                      c. <i>Write an equation to express the relationship between the number of bottles of sports drink he buys and the price he pays.</i></p>	<p><i>To look across all 5 items of Category II, affix page 2 of the Category II checklist here.</i></p>
	Class A	Class B	Class C												
Students who Purchased Tickets	18	24	15												
Total Number of Students	24	32	20												
Makes Sense	<p>___ Restates the problem accurately                      ___ Recognizes information given in the problem                      ___ Identifies what is to be determined</p>	<p>___ Restates the problem accurately                      ___ Recognizes information given in the problem                      ___ Identifies what is to be determined</p>													
Creates Representations	<p>___ Writes the ratio using “to” or “/” notation                      ___ Shows a unit rate (or base rate) for each class                      ___ Creates a ratio table of values with appropriate labels                      ___ Writes a proportion</p>	<p>___ Writes the ratio using “to” or “/” notation                      ___ Determines unit rate (or base rate) for each class                      ___ Creates a ratio table of values with appropriate labels                      ___ Writes a proportion</p>													
Uses a Reliable Strategy	<p>___ Makes use of the unit rate; the total number of students to the students who purchased tickets is <math>\frac{4}{3} : 1</math> for all classes or students who purchased tickets to the total number of students is <math>\frac{3}{4} : 1</math> for all classes                      ___ Scales the ratio up or down; <math>\frac{18}{24}</math> to <math>\frac{24}{32}</math> and <math>\frac{15}{20}</math>. May invert all ratios. May scale one down to base rate of <math>\frac{3}{4}</math> and scale up to the others                      ___ Represents data as a graph and determines that the line passing through (0,0)                      ___ Writes an equation that describes the relationship between the y, total number of students and x, the students who purchased tickets from each class; <math>y = \frac{4}{3}x</math>                      ___ Writes an equation that describes the relationship between y, the students who purchased tickets and x, the total number of students for each class; <math>y = \frac{3}{4}x</math></p>	<p>___ Forms the ratio 6:9.36 (with appropriate labeling)                      ___ Scales the ratio up or down; 1:1.56 and 21:32.76                      ___ Makes use of the unit rate; uses division to determine that 1 bottle costs \$1.56 and then multiplies to determine that 21 bottles cost \$32.70; or writes the equation <math>p = 1.56n</math>, and then uses the equation to find the price of 21 bottles                      ___ Uses cross-multiplication to determine the cost of 1 bottle and 21 bottles of sports drink in the cost of <math>\frac{6}{9.36} = \frac{1}{x}</math> or <math>\frac{6}{9.36} = \frac{21}{x}</math></p>													
Provides Explanation	<p>___ The ratios (equations) describe the relationship between, e.g., the total number of students and the students who purchased tickets for each class                      ___ If the relationship is proportional, the ratios (equations) must be constant (or equivalent)                      ___ In proportional relationships, the points all fall on a straight line that passes through the origin</p>	<p>___ The ratio describes the relationship between the 6 bottles of sports drink and the cost of \$9.36, so therefore 1 bottle will cost \$1.56                      ___ <math>1.56n = p</math> where <math>n</math> = number of bottles and <math>p</math> = price                      ___ The x represents how much 1 (or 21) bottles of sports drink will cost; \$9.36 is how much 6 bottles cost and \$32.76 is the cost of 21 bottles                      ___ Since 1 bottle costs \$1.56, I can multiply <math>1.56 \times 21</math> to determine that 21 bottles cost \$32.76</p>													

Category II	<p><b>11. Graphing Problem</b>  <i>The graph (below) shows the number of toys that students in 6 middle school classes collected for charity.</i>                      a. <i>Is the relationship between the number of students in the class and the number of toys collected a proportional relationship?</i>                      b. <i>If the relationship is proportional, write an equation that shows the relationship between the number of students in the class and the number of toys collected. If the relationship is not proportional, explain how you know.</i></p> 	<p><b>12. Constant Rate Problem</b>  <i>It takes Lola 20 minutes to walk her dog <math>\frac{1}{2}</math> mile. What is her walking rate in miles per hour?</i></p>	<p><b>13. Percent Problem</b>  <i>Michael needs to buy a new pair of sneakers and his favorite style of sneakers normally cost \$75.00. There is a 20% discount on sneakers at the mall.</i>                      a. <i>If he buys his favorite sneakers at the mall, how much money will he save?</i>                      b. <i>How much will his sneakers cost at the discount price?</i></p>
<p><b>Makes Sense</b></p>	<p>___ Restates the problem accurately                      ___ Recognizes information given in the problem                      ___ Identifies that the goal is to find out if the ratios are equivalent</p>	<p>___ Restates the problem accurately                      ___ Recognizes information given in the problem                      ___ Identifies what is to be determined</p>	<p>___ Restates the problem accurately                      ___ Recognizes information given in the problem                      ___ Identifies what is to be determined</p>
<p><b>Creates Representations</b></p>	<p>___ Creates individual ratios using "to" or "/" notation                      ___ Makes a graph                      ___ Makes a ratio table of values with appropriate labels                      ___ Writes a proportion</p>	<p>___ Shows/draws a diagram a diagram (track) representing <math>\frac{1}{2}</math> mile in 20 minutes and iterates it to get <math>\frac{3}{2}</math> mile in 60 minutes                      ___ Makes a double number line                      ___ Creates individual ratios "to" or "/" notation                      ___ Makes a ratio table of values with appropriate labels                      ___ Writes a proportion</p>	<p>___ Makes a double number line; partitions 100% into 5 equal parts; partitions \$75 into 5 equal parts to determine that \$15 is the savings                      ___ Creates individual ratios "to" or "/" notation                      ___ Makes a ratio table of values with appropriate labels                      ___ Writes a proportion</p>
<p><b>Uses a Reliable Strategy</b></p>	<p>___ Identifies simplifies the ratio                      ___ Scales the ratio up or down                      ___ Represents the points in the graph as ratios and finds their decimal equivalence to determine whether the ratios are constant                      ___ Draws a line that passes through all points and recognizes that the data points are not collinear, thus the data is not proportional                      ___ Creates a table of values and determines there is not a constant multiplicative relationship between the two columns                      ___ Tests for proportionality by determining the cross-products of pairs of ratios and finds that some cross-products are not equal (not evidence of proportional reasoning)</p>	<p>___ Scales the ratio up or down; Uses <math>\frac{1}{2}</math> mile:20 min and scales up to get <math>\frac{3}{2}</math> mile:60 min                      ___ Converts 20 minutes to <math>\frac{1}{3}</math> hr and multiplies <math>\frac{1}{2}</math> mile by 3 (three 20 minute segments in 1 hour) to find <math>\frac{3}{2}</math> mph, Notes that <math>20(3) = 60 \rightarrow \frac{1}{2}(3) = \frac{3}{2}</math>                      ___ Creates a table; may extend the table beyond 60 minutes                      ___ Uses cross-multiplication to solve proportion <math>\frac{\frac{1}{2}}{20} = \frac{x}{1}</math> or <math>\frac{\frac{1}{2}}{20} = \frac{x}{60}</math></p>	<p>___ Uses cross-multiplication to solve the proportion <math>\frac{20}{100} = \frac{x}{75}</math>                      ___ Uses a known fact <math>20\% = \frac{20}{100} = \frac{1}{5}</math> or .20 and multiplies \$75 by .20 or <math>\frac{1}{5}</math>                      ___ Uses a grid</p>
<p><b>Provides Explanation</b></p>	<p>___ The ratios represent the points on the graph, the class size, and the number of toys collected                      ___ The ratios are not equivalent; therefore, the relationship is not proportional                      ___ The point (20,7) did not fall on the same line as the other points so therefore it is not a proportional relationship</p>	<p>___ The 20 is the number of minutes Lola walks her dog. The <math>\frac{1}{2}</math> mile is the distance they travel                      ___ It takes three 20-minutes to make an hour, so 20 minutes is <math>\frac{1}{3}</math> miles an hour                      ___ The x represents number of miles Lola and her dog can walk in 1 hour/60 minutes                      ___ Since <math>\frac{1}{2}</math> mile takes 20 minutes, 1 mile takes 40 minutes and <math>1\frac{1}{2}</math> miles will take 60 minutes</p>	<p>___ \$75 is the original price of a pair of sneakers.                      ___ Names the discount of 20% and states that \$20 is saved for every \$100                      ___ The x represents the amount of discount out of the \$75 original cost                      ___ <math>\frac{20}{100}</math> says that out of every 100 dollars cost, 20 will be taken off or discounted. But the sneakers only cost \$75, so I have to find the ratio out of 75 that will be equivalent to <math>\frac{20}{100}</math>. So I solve <math>\frac{20}{100} = \frac{x}{75}</math>, which says the ratios are equivalent                      ___ States an equivalent ratio; since the original price of sneakers is \$75, \$15:\$75 is equivalent to 20:100</p>