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Bridging Practices	
Among CT Mathematics Educators	
Day 2 – Mathematics	
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Goals for today	
• Define ratios and proportions, and understand	
difference with fractions.	
 Analyze and evaluate students' procedures for 	
solving problems.	
 Apply a variety of strategies to solve problems; and 	
recognize when to use them.	
 Use strip diagrams to solve problems that require 	
proportional reasoning.	
• Continue to recognize the depth and complexities of	
proportional reasoning.	
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Definition: A ratio is a pair of non-negative numbers,	
A and B, which are not both zero.	
• Symbolically: A:B, A to B, B:A, B to A	
• The value of A:B is the quotient $\frac{A}{B}$, if B in non-	
zero	
• Example: Tree A	
The ratio of height of tree before to height of tree	
after is 8:14. The value of this ratio is 4/7 and it	
represents	

The second secon	
• Example 2: Egg carton	
Suppose the ratio of white to brown eggs is 1:2,	
Does this mean you will have ½ of each?	
using a visual	
What footback the contains 2 And 122	
What fraction of the eggs is brown? And white?	
Datics and Exactions are two different concents	
Ratios and Fractions are two different concepts!	
The same of the sa	
Equivalent ratios	
A:B and C:D are equivalent iff they have the same	
value	
What are the consequences of this?	
A <i>proportional relationship</i> is a collection of pairs	
of numbers that are in equivalent ratios.	
A <i>proportion</i> is an equation stating that two ratios	
are equivalent.	
• Example: Orangey Juice	
How can oraginess be quantified?	
Keep ratio same	
Use a proportion!	
If we wanted to prepare juice with the same oranginess as	
Pitcher A but using 5 cans of orange concentrate, how much water should we use?	
Pitcher A → orange to water 1:3 or 1/3	
We need same value! How do we find that?	
Use a proportion!	
Try it	

Ratio: Two Perspectives A COMPOSED UNIT/BATCH Two quantities are in a ratio of A to B if for every A units present of the first quantity there are B units present of the second quantity. Example: For every 7 female project participants in this room there is 1 male project participant. Example: Alvaro's favorite trail mix requires 1 parts of raisins, 4 parts granola, and 5 parts of M&M peanuts a bag/bowl.



