Ratios and Rates

Here are some ideas to work with writing ratios with your student:

1) Write ratios to describe items around your home (fruits to vegetables, males to females, minutes of a TV show to minutes of commercials, etc.)

2) Survey family and friends about their likes and dislikes and write ratios to describe your findings. For example, 7 out of 10 of my classmates like the new school mascot better than the old.

3) Use Khan Academy to review ratios:

<http://www.khanacademy.org/math/arithmetic/basic-ratios-proportions/v/introduction-to-ratios--new-hd-version>

4) Or to practice writing ratios:

<http://www.khanacademy.org/math/arithmetic/rates-and-ratios/e/expressing_ratios_as_fractions>

Here are some ideas to work with finding equivalent ratios:

1) Select a recipe and find how much of each ingredient you need to make different amounts of the recipe. For example, how much sugar do you need to make half a batch of cookies? How about for three batches of cookies?

2) Find the price for two different brands of one product. Create a ratio table to compare how much different amounts of the products cost. If you compare the same amount of product, which brand is cheaper? If you spend the same amount of money, which brand gives you more product?

3) Use Khan Academy to review equivalent ratios:

<http://www.khanacademy.org/math/arithmetic/basic-ratios-proportions/v/introduction-to-ratios--new-hd-version>

Here are some ideas to work with solving unit rate problems:

1) Time your student or another person doing some task. Write a rate to describe what was done and how long it took to do it. Then, find a unit rate to describe the task. For example, I washed 15 dishes in 5 minutes, so I wash 15 dishes per 5 minutes or 5 dishes per minute.

2) Look at a grocery store flier. Write a rate to describe the price for a certain amount of one item. Then, find a unit price for that item. For example, orange marmalade costs $4.49 for 13 ounces, so it costs $4.49 per 13 ounces or $0.35 per ounce.

3) Use Khan Academy to review finding unit rates and unit prices

<http://www.khanacademy.org/math/arithmetic/basic-ratios-proportions/v/finding-unit-prices>

<http://www.khanacademy.org/math/arithmetic/basic-ratios-proportions/v/finding-unit-rates>

Here are some ideas to work with comparing rates with your student:

1) Sometimes, grocery and convenience stores do not give you the unit price to help compare the price of their products. Compare products that do not give the unit prices to find which one is cheaper per volume and/or weight.

2) Guess how fast your heart beats in 60 seconds. Then place two fingers on your wrist or neck and count how many beats you feel in 10 seconds. Was your guess faster or slower than the heartbeat you measured?

3) Use Khan Academy to review finding the unit price and unit rate.

<http://www.khanacademy.org/math/arithmetic/basic-ratios-proportions/v/finding-unit-rates>

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