

Exploring the World of Math

Name: _____ Date: _____

Sharing

1. Michel likes chocolate cake 3 times more than yellow cake. We have two cakes, one chocolate and one yellow. The cakes are \$20 each.
 - a. How much is $\frac{1}{2}$ of the yellow cake worth to Michel?

 - b. How much is the chocolate cake worth to Michel?

 - c. How much is $\frac{1}{3}$ of the chocolate cake worth to Michel?

 - d. How much is $\frac{1}{4}$ of the yellow cake worth to Michel?

2. Warren is looking at two used cars he wants to buy for himself and his sister. He has \$10,000 cash that he has saved up. A sports car is worth 4 times more than a sedan to Warren. A sedan is worth 3 times more than a sports car to his sister Siesta.
 - a. How would Warren share his money based upon buying the sports car and a sedan?

 - b. How would Siesta share the money based upon buying the sports car and a sedan?

3. Tracy is earning an Associate degree in Veterinary Science. Her initial degree is worth 5 times more than getting a follow on Bachelor's degree. She has access to \$50,000 for her education.
 - a. How much money should Tracy put towards her initial degree?

 - b. How much money should Tracy put towards her second degree?

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4. Tony, Trisha and Wyandot are bidding on three items labeled A, B and C. They choose as follows:

	A	B	C
Tony	$33\frac{1}{3}\%$	$33\frac{1}{3}\%$	$33\frac{1}{3}\%$
Trisha	40%	10%	50%
Wyandot	45%	20%	35%

- What items are fair shares to Tony?
 - What items are fair shares to Trisha?
 - What items are fair shares to Wyandot?
5. Tina, Smyrna and Simon are bidding on three items labeled s1, s2 and s3. They all want to win one item and leave for home with a successful trip to the auction. Their bids are:

	S1	S2	S3
Tina	\$3400	\$2400	\$2000
Smyrna	\$2500	\$2500	\$2500
Simon	\$1500	\$1750	\$2700

- Find a fair shares and divisions for the each bidder
6. There is a perfectly square cake and five people want to share equal part of cake and icing. How would you divide it?
7. Explain the Divider Chooser method where there is a pizza that is $\frac{1}{2}$ pepperoni and $\frac{1}{2}$ mushroom. Sam likes pepperoni and mushroom equally and he is the divider. Stacey like mushroom and hates pepperoni and she is the chooser.
- Sam should cut the Pizza in what manner?
 - Stacey would choose the Pizza in what manner?