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Student in My Life

I work with two boys who are on the autism spectrum, and the younger brother is a 9 year old named Ezra. I've known Ezra since he was 6, and so I've gotten the chance to watch him grow through the years and change as a person. Ezra is a sweet boy who loves to joke and make people laugh all the time, and he loves to show other people about the things he's interested in. He likes video games (as most 9 year old boys do) as well as watching youtube videos about video games, and he's discovered a talent for making drawings over the last year. As I mentioned, Ezra is on the spectrum and so schoolwork and homework was never really his favorite, but once students went remote due to the pandemic, Ezra flourished and began to do so much better with his classes. He used to have an extremely hard time finishing assignments and they would take him hours just to do one, but now he's grown so much and can do so much more work independently. He is able to keep his attention on assignments longer which was previously a problem with him getting bored extremely easily and not being able to maintain attention also because of his adhd. But with the incorporation of more online work and assignments, he is able to keep his attention on his work for longer, and while this may have something to do with how technology is becoming more of the normal format for learning, it has shown to be an effective way at least for Ezra to learn to more of his potential. I have also seen him develop an interest for reading when he used to hate it, but his mother began finding the types of books he likes and now he reads daily. This is one of the things I am most proud of in watching him grow up, because I get to see all the areas he has improved in over the years.

Task Two

1. ADDITION AND SUBTRACTION WORD PROBLEMS

Classify each of the following problems as join, separate, part-part-whole, or compare. Indicate which quantity is unknown and write a number sentence that represents the relationships expressed in each problem.

1. Maddux counted three buses on the way to school. She saw six buses on the way home. How many did she see on the way to school and back home? **Join - total number of buses is unknown : $3+6=?$**

2. Kushya has to take the subway for 19 minutes to get to work. She first has to walk 15 minutes to the subway. How many more minutes is she on the subway than walking? **Compare- difference in minutes is unknown: $15+?=19$**

3. Kushya has three flower stickers on her computer and four flower stickers on her journal. How many flower stickers does she have altogether? **Join- stickers in total is unknown $3+4=?$**

4. Maddux has a bag of four clementines that she will share at daycare. Her mom gives her some more. Now Maddux has seven clementines to share. How many clementines did her mom give her?

Join- amount her mom gave her is unknown: $4+?=7$

5. Kushya has seven books to help her plan the Math Methods class. She has four on her desk. The rest are on the floor. How many are on the floor? **Separate- amount on the floor is unknown: $7-4=?$**

6. Kushya and Maddux joined Roots & Shoots, a nonprofit to help save sea turtles. They worked to save some turtles one summer. Then, the next summer, they saved 12 more. Now, they have saved 49 sea turtles! How many sea turtles did Kushya and Maddux save the first summer?

Join- amount they saved the first summer is unknown: $?+12=49$

7. Kushya and Maddux grew some tomatoes. They gave five to an elderly neighbor who was struggling to get fresh produce. Now they have six tomatoes. How many did Kushya and Maddux start out with?
separate- start is unknown: $?-5=6$

8. Maddux took nine library books out of the library. She returned six books to the library. How many books does she have left?

Separate- result unknown: $9-6=?$

9. Kushya walks nine minutes to get to school. Alex walks for three minutes less than Kushya to get to work. How long does Alex walk?

Separate- result unknown: $9-3=?$

10. Kushya weighed 153 pounds at the end of her pregnancy. At the beginning of her pregnancy she weighed 130 pounds. How many pounds did Kushya gain? **Joint- change unknown: $130+?=153$**

11. Kushya gave Alex some money to do the laundry. He spent \$5.50 on one load of laundry. Now Alex has \$18.50 left. How much money did Kushya give Alex to do the laundry? **Separate- start unknown $?-5.50=18.50$**

12. Kushya's sister-in-law, Anna, has lived in America for eleven years. (She is from Russia.) Kushya's mother, Beverly, has lived in America for twenty-nine years more than Anna. How long has Beverly lived in America?

joint- result unknown: $11+29=?$

MULTIPLICATION AND DIVISION WORD PROBLEMS:

Classify each of the following problems as equal grouping, rate, multiplicative compare, rectangular array, or combination. Finally, identify whether each problem is a multiplication or a division

problem. (For the equal grouping division problems, also decide if the problem is partitive or measurement (repeated subtraction)).

1. Five families are planning to share 53 bags of vegetables from a community garden. How many bags will each get? **53/5 equal groups- group size unknown**

2. Martin works at a coffee shop. He makes \$7.50 each hour. (Since he is supposed to be supplementing with tips, he does not make minimum wage.) If he works for 5 hours, how much money does he make? **Equal groups- unknown product 7.50×5**

3. Kushya is excited because she just got a CityBike membership, which will allow her to save money on transportation and also get exercise. She bicycled 36 miles in 3 hours. How fast did Kushya bike? **Equal groups – group size unknown (partition division) $36/3$**

4. A restaurant offers 5 appetizers and 7 main courses. How many different meals can be ordered if a meal consists of one appetizer and one main course? **Equal groups – unknown product (multiplication) 5×7**

5. Kushya is donating clothing to the neighborhood thrift store. She donated 6 items of clothing last month. She donated 42 items this month. How many times more clothing did she donate this month than last month? **Measurement division– Multiplier unknown $42/6$**

6. Maddux is learning how to write letters and numbers! Last week she was able to write 7 letters and numbers. This week, she learned to write 3 times as many letters. How many letters did Maddux learn to write this week? **Comparison problems – product unknown 7×3**

7. NYC is experiencing record temperature highs. To combat health concerns, the neighborhood center set up a cooling station. The volunteers are giving out water. There are 46 ounces of water in a picture, and each jar holds 8 ounces of water. How many jars are needed to hold the water? **Group size unknown partition division $46/8$**

8. Mariatere is buying fabric to make some doll clothing for her children. She has a 1,440-square-inch piece of fabric that is 60 inches wide. How long is the fabric? **Area problems - group size unknown/Number of groups unknown– $1440/60$**

9. Kushya and Alex just rescued four turtles for Maddux's class to take care of. Each turtle eats five cups of turtle food per week. For each week, how much turtle food does the class need?

4x5 unknown product equal groups

10. Kushya loves to take walks for exercise. She can walk at a rate of 3 miles per hour. How long does it take Kushya to walk 12 miles? **Number of groups unknown (measurement division) 12/3**

11. Lucas earned \$24. He earned 3 times as much as Maria (for doing the same work). How much did Maria earn? **Comparison problems - group size unknown (partition division) 24/3**

12. The foundation of the school measures 70 feet by 25 feet. What is the square footage of the ground floor of the school?

Array and area problems - product unknown 70x25

DIVISION WITH REMAINDER WORD PROBLEMS:

Examine each of the following problems and decide what happens to the remainder. What factors affected your decisions?

1. You are working in an after school program and the kids want jump ropes! Each jump rope is 8-feet long and you have 25 feet of rope. How many jump ropes can you make? **I can make 3 jump ropes 8ft and 4 inches, this would be considered share it because the rope is being divided into three and the remainder can be shared**

2. It is holiday time in the after school program. You have collected 30 pencils to share fairly with the 7 children in your group. How many pencils will each child receive? **Each student would receive 4 and the remaining two would be left out, this would be considered drop it because the questions states that the pencils must be shared fairly and pencils can not be split**

3. You are taking the ferry to Staten Island to visit a friend. The ferry can hold 8 cars. How many trips will it have to make to carry 42 cars across the river? **5 trips, and two of the trips would have to hold one extra person. This would be considered add it because everyone has to fit**

4. The six children in the family are equally sharing the \$50 that their grandparents gave them for the holidays. About how much money will each child get? **Each child would get \$8.25. This would be considered share it, because the leftover money can be split into change.**

5. You are trying out a new hobby! You want to make a bookcase. You have a 10-feet piece of wooden board that you want to cut into 4 pieces. How long will each piece be? **Each piece will be**

2.5 feet, this would be considered share it because the wood can be split into less than whole numbers in feet.

6. Maddux and Kushya picked 14 quarts of blueberries to make jam. Each batch of jam uses 3 quarts of berries. How many quarts of blueberries will Maddux and Kushya have left for muffins? **5 quarts remaining**

CONTENT:

FOUR OPERATIONS & NUMBER COMBINATIONS

1. ADDITION AND SUBTRACTION WORD PROBLEMS

Create word problems for as many of the addition and subtraction situations below as you can. Be sure to include number reasoning strategies (chapter 9) and contexts appropriate for the students in your class.

Also, keep in mind what strategy you would like your students to build towards or the concept that you would like your students to develop from this problem. (What is your goal?)

TYPE OF PROBLEM: JOIN	EXAMPLE
JOIN: Result Unknown	Sam had 3 pencils. Jane gave her 3 more. How many does she have now?
JOIN: Change Unknown	Nicole had 5 apples. Michael gave her some more. Now she has 20 apples. How many did Michael give her?
JOIN: Initial Quantity Unknown	Gabriela had some crayons. Alex gave her 4 more. Now she has 12. How many crayons did Gabriela have?
TYPE OF PROBLEM: SEPARATE	EXAMPLE
SEPARATE: Result Unknown	Gabbi had 13 jelly beans, and she gave 4 to Justin. How many jelly beans does Gabbi have now?
SEPARATE: Change Unknown	Michelle had 7 folders and she gave some to Amanda. Now Michelle has 3 folders. How many folders did Michelle give Amanda?

SEPARATE: Initial Quantity Unknown	Isabella had some toys, then she gave 3 to Melissa. Now Isabella Isabella has 2 toys. How many did she have?
TYPE OF PROBLEM: PART-PART-WHOLE	EXAMPLE
Whole Unknown	Adrianna has 5 green yarn bundles and 4 pink yarn bundles, how many does she have in total?
One Part Unknown	Ashley has 5 cats. 3 of her cats are girls and the rest are boys. How many boy cats does Ashley have?
TYPE OF PROBLEM: COMPARE	EXAMPLE
Difference Unknown	Michael has 5 hamburgers and Daisy has 8. How many more hamburgers does Daisy have than Michael?
Larger Quantity Unknown	Gabriela has 4 more lipsticks than Roti, and Roti has 12 lipsticks. How many lipsticks does Gabriela have?
Smaller Quantity Unknown	Jonathan has 4 more video games than Ashley. Jonathan has 7 video games. How many video games does Ashley have?

2. MULTIPLICATION AND DIVISION WORD PROBLEMS

Create word problems for each type of addition and subtraction situations below. Be sure to include numbers that promote reasoning strategies (chapter 9) and contexts appropriate for the students in your class.

TYPE OF PROBLEM: EQUAL GROUPS	EXAMPLE
PRODUCT UNKNOWN (MULTIPLICATION)	Ignacio had 4 pair of socks in his bag, how many socks did he have?
GROUP SIZE UNKNOWN	Osmar has 15 paintings to give to his

(PARTITIVE DIVISION)	3 kids, how many paintings did each kid get?
NUMBER OF GROUPS UNKNOWN (QUOTATIVE DIVISION)	Gabriela has 36 perfumes and she's putting them on shelves with 9 perfumes per shelf. How many shelves does she need?
TYPE OF PROBLEM: COMPARISON	EXAMPLE
PRODUCT UNKNOWN (MULTIPLICATION)	Kayla had 3 students in her class, Gabriela had 10 times as many, how many students did Gabriela have?
GROUP SIZE UNKNOWN (PARTITIVE DIVISION)	Lacey had 40 students in her group, she had 4 times as many as Gabriela. How many students did Gabriela have?
NUMBER OF GROUPS UNKNOWN (QUOTATIVE DIVISION)	There are 30 folders to be distributed to students in rows of 5. How many rows are there?
TYPE OF PROBLEM: ARRAY & AREA PROBLEMS	EXAMPLE
PRODUCT UNKNOWN	There are 6 rows of 5 students in a classroom. How many students are there?
GROUP SIZE UNKNOWN	There are 20 plants distributed into 4 equal rows. How many plants are there in each row?
NUMBER OF GROUPS UNKNOWN	There are 30 books equally distributed on 5 shelves. How many books are there on each shelf?
TYPE OF PROBLEM: COMBINATION	EXAMPLE
PRODUCT UNKNOWN	There are 3 different flavors of ice cream and 2 toppings for each flavor. How many different combinations can you get with one flavor and one topping?

3. DIVISION: INTERPRETING THE REMAINDER:

REMAINDER TYPE	EXAMPLE	PARTITIVE OR MEASUREMENT?
DISCARDED	Gabriela had 12 markers to share evenly with her two best friends, how many did each friend get?	
FORCE TO NEXT HIGHEST	There were 5 buses only making one trip that needed to fit 31 people. How many people were on each bus	
ROUNDED	Gabriela was given \$50 to share with her sister and brother, how much did each of them get?	
PARTITIONED AS A FRACTION	There were 8 slices of pizza to be split evenly and 3 people, how much pizza did each person get?	
REMAINDER ONLY	There was 5 slices of cake and 3 people eating once each, how many were leftover?	

CONTENT :

GEOMETRY

1. CATEGORIZING QUADRILATERALS

Which quadrilaterals fit each of the following clues?

(A clue may apply to more than one figure.)

1. Figure A has 4 congruent sides and 4 congruent angles.
Square
2. Figure B has 4 sides that are congruent, but the 4 angle measures are not equal. parallelogram
3. Figure C has 2 pairs of congruent sides and 4 congruent angles. Parallelogram and square
4. Figure D has only 1 pair of parallel sides.
5. Figure E has exactly 2 pairs of congruent sides. Square and parallelogram