**Jasper** feels overwhelmed when there is a lot of text on a page because he has difficulty with reading comprehension, particularly when there are a lot of math vocabulary terms. He often gets confused by the wording of directions, and thus is unsure of what he is being asked to do. He is embarrassed to ask for help in class because the other students all seem to catch on right away. Jasper is more comfortable when things are presented visually. Often he draws pictures as a way to figure out the solutions to problems.


Problem one is: This is Amy's box of candies.  She has already eaten six of them. What fraction of the candies has Amy eaten?

There is a box divided into a three by three grid.  The left and middle columns are empty.  The right column has three candies in it.  

Jasper wrote three ninths in the blank with an "x" next to it.


Problem two is Valerie shares some of the twelve candies from this box. She gives Cindy one candy for every three candies she eats herself. How many candies does she give to Cindy?  Show how you figured this out.

Valerie's box of candy has three rows and four columns. All columns are filled with candy. Jasper writes there are three candies in a column so divide them by twelve and you get four.  So four is the answer. Above that jasper writes a four with a box around it. Jasper writes twelve divided by three as a long division problem and solves it.

Problem three: In a packet of mixed candies there are two fruit centers for every three caramel centers.  There are thirty candies in the packet.  How many caramel centers are there?  Show how you figured this out.  There is no diagram provided for this problem. 

Jasper draws a rectangle with three rows and ten columns.  He fills in the top two rows with the letter "f".  And the bottom row with the letter "c". jasper writes "ten because you divide three by thirty, that is ten." He shows thirty divided by three as a long division problem.

Problem four: Anthony makes candies. First, he mixes one cup cream with two cups of chocolate.  In all, he uses nine cups of these two ingredients.  How many cups of chocolate does he use in this candy receipe?  Explain how you figured this out.  There is no diagram providedfor this problem.

Jasper writes" six cups" in the blank for his answer.  For his explanation he writes, " because one cup of cream plus two cups of chocolate equals three. So you add one cup of cream plus two cups of chocoloate equals three. Also add, one cup of cream plus two cups of chocolate that equals three.  Then three plus three plus three equals nine cups."  Jasper circles the three numeral threes and to the right writes "equals nine".

**Anwyn** is able to focus on math tasks and often comes up with novel solutions. However, she is rigid in her thinking, finds it very difficult to explain her work, and seldom checks what she has done. She has little patience with geometric tasks and visual representations. She rarely pays attention to verbal directions, wanders about the class at every opportunity, constantly looks out the window and delights in creating subtle distractions for other students.

Problem one is: This is Amy's box of candies.  She has already eaten six of them. What fraction of the candies has Amy eaten?

There is a box with three rows and three columns.  The left and middle columns are empty.  The right column has three candies in it.  

Anwyn writes "two-thirds of the candies."

Problem two is Valerie shares some of the twelve candies from this box. She gives Cindy one candy for every three candies she eats herself. How many candies does she give to Cindy?  Show how you figured this out.

Valerie's box of candy has three rows and four columns. All columns are filled with candy.
 
Anwyn writes, "three candies" in the answer blank. Below that she writes,"three candies equals Valerie has eaten before giving Cindy one. 1,2,3,1, 1,2,3,2, 1,2,3,3."

Problem three: In a packet of mixed candies there are two fruit centers for every three caramel centers.  There are thirty candies in the packet.  How many caramel centers are there?  Show how you figured this out.  There is no diagram provided for this problem. 

Anwyn writes "eighteen caramel centers" in the answer blank. Anwyn writes a ratio table labled with fruit and caramel. the top row says, "fruit 2,4,6,8,10,12." The bottom row says "caramel 3,6,9,12,15,18."  To the right of the ratio table she writes "twelve plus eighteen equals thirty."

Problem four: Anthony makes candies. First, he mixes one cup cream with two cups of chocolate.  In all, he uses nine cups of these two ingredients.  How many cups of chocolate does he use in this candy receipe?  Explain how you figured this out.  There is no diagram providedfor this problem.

Anwyn writes," six cups" in the answer blank.  And in her explanation she writes," three times two is six, three times one is three, three plus six equals nine."

**Mira** is easily distracted and seems to tune in and out during math class. During class discussions, she doesn’t pay attention to other students’ explanations but she likes to talk about her own ideas. She says some things that are on target while others seem to be coming from “left field.” When she is solving math problems, she shows similar inconsistencies. Sometimes she comes up with good strategies for approaching problems but she has difficulty changing directions if the strategy doesn’t work. She also tends to rush through math problems, leaving out parts and making careless errors.

Problem one is: This is Amy's box of candies.  She has already eaten six of them. What fraction of the candies has Amy eaten?

There is a box with three rows and three columns.  The left and middle columns are empty.  The right column has three candies in it.  

Mira writes "three fourths" in the answer blank.

Problem two is Valerie shares some of the twelve candies from this box. She gives Cindy one candy for every three candies she eats herself. How many candies does she give to Cindy?  Show how you figured this out.

Valerie's box of candy has three rows and four columns. All columns are filled with candy. To the right of the box of candy Mira writes, "three plus one equals four candies".  She writes "four candies" in the answer blank. 

Problem three: In a packet of mixed candies there are two fruit centers for every three caramel centers.  There are thirty candies in the packet.  How many caramel centers are there?  Show how you figured this out.  There is no diagram provided for this problem. 

Mira writes in the answer blank "three caramel centers".

Problem four: Anthony makes candies. First, he mixes one cup cream with two cups of chocolate.  In all, he uses nine cups of these two ingredients.  How many cups of chocolate does he use in this candy receipe?  Explain how you figured this out.  There is no diagram providedfor this problem.

Mira writes in the answer blank "three times three equals nine".  In her explanation she says "he use one cup of cream with two cups of chocolate in all. So he used nine cups of these two incredients. the total is three times three equal nine cups of chocolate."
