

MODEL DRAWING

A Strategy for Solving Word Problems

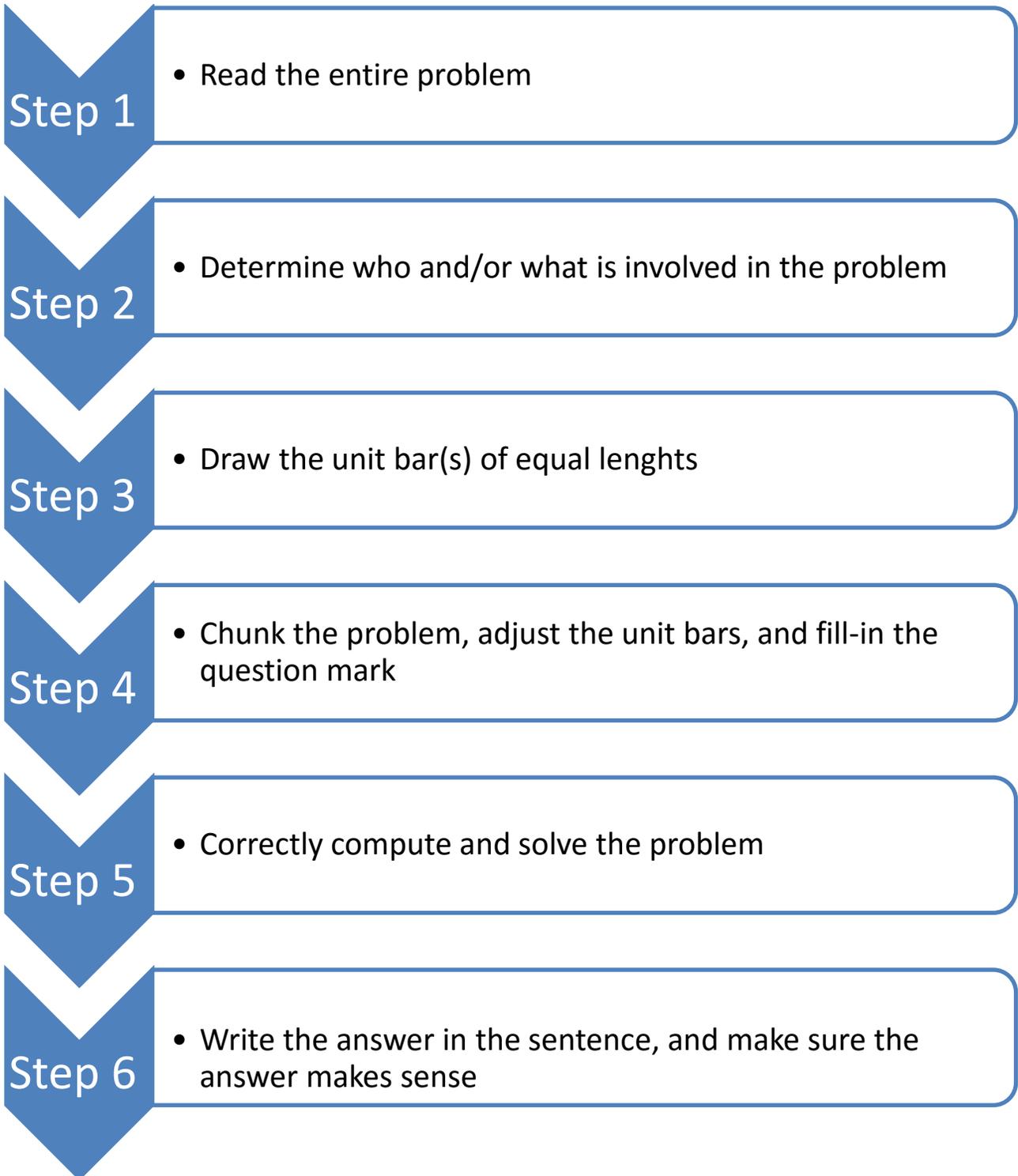


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Laura went shopping. She spent $\frac{1}{4}$ of her money on a blouse. She then spent $\frac{1}{3}$ of her remaining money on a belt. When she looked into her purse, she saw that she had \$42.00 left. How much money did Laura start with?

Work Space:

Steps to Model Drawing- based on Char Forsten's work



Kate read 2 books. She also read 3 magazines. How many books and magazines did she read altogether?

Step 1: Read the problem. (Read and picture what it is about.)	
Step 2: Determine Who and What is involved. (Write down who and/or what the problem is talking about.)	
Step 3: Draw the unit bar. (If more than one, unit bar should start with same length.)	
Step 4: a. Chunk the problem. (Reread the problem and add to the model.) b. Adjust the unit bar. (Label each bar.) c. Fill in the ? (Add a ? to show the answer we need.)	
Step 5: Do the calculations and solve the problem.	
Step 6: Write the answer in a sentence and check to see that it answers makes sense.	

Alice had \$6 more than Bob. If Bob had \$10.00, how much did they have altogether?

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There are 4 fishbowls in the science classroom. Each bowl contains 2 fish. How many fish are there in all 4 bowls?

Mr. Cash had 12 cookies. He wanted to divide them evenly among 3 students. How many cookies will each student receive?

Annie and Paul caught fireflies one hot summer night. Annie caught 4 more fireflies than Paul. Paul caught 5 fireflies. How many fireflies did they catch altogether?

Becca and Sari strung beads on a necklace. They each began with 34 beads, but Becca took off 14 beads, while Sari added another 43 beads. How many more beads does Sari's necklace have than Becca's?

Amy had 5 baseball cards. Jeff had 3 times as many cards as Amy. How many baseball cards did they have altogether?

Eddie had 3 times as much money as Velma. Tina had 2 times as much money as Velma. If Tina had \$60, how much money did Eddie have?

Two-thirds of a number is 8. What is the number?

In the fourth grade, $\frac{3}{7}$ of the students were boys. If there were 28 girls in the grade, how many boys were in the grade?

Mrs. Owen bought some eggs. She used $\frac{1}{2}$ of them to make cookies and $\frac{1}{4}$ of the remainder to make a cake. She had 9 eggs left. How many eggs did she buy?

Frankie Sue correctly answered 80% of the questions on her science test. If there were 30 questions on the test, how many questions did she answer correctly?

One number is one fourth of another number. If the difference between the numbers is 39, find the two numbers.

REFLECTIONS:

MATH BEAUTY CONTEST PRACTICE- Grades 3-5

One Saturday Tom and Joan went to the bike shop with their parents. Tom and Joan decided to count the number of bikes and the number of tricycles that were there. They also counted the number of wheels on all of the bikes and tricycles. There were 110 wheels altogether. They found out that there were 4 times as many bikes as tricycles. There were a total of 50 bikes and tricycles altogether. How many bikes were there? How many tricycles were there?

Work spaces:

VCTM MATH BEAUTY CONTEST PRACTICE- Grades 3-8

Jan's mother bought a big bag of candy with Tootsie Rolls, Starbursts and Blow Pops in it in order to make a piñata for Jan's birthday party. There were 450 pieces of candy in the bag. There was an equal amount of Blow Pops and Starbursts. There were twice as many Tootsie Rolls as Blow Pops and Star Bursts combined. How many Tootsie Rolls were there? How many Blow Pops were there? How many Starbursts were there?

Work space:

Choose an appropriate grade level problem and work with a partner.

3rd grade: Mr. Baker has 4 shelves of textbooks. There are 28 textbooks on each of these shelves. How many textbooks in all are on these shelves?

4th Grade: On each of 4 days Mr. Evans drove 38 miles. What is the total number of miles Mr. Evans drove over these 4 days?

6th Grade: Jill had 3 full pans of brownies. Each pan was the same size. She gave of the original amount of brownies to her friends. She gave of the original amount of brownies to her teacher. Exactly how many pans of brownies does Jill have left over?

8th Grade: Kimberly wants to buy a new television for her mother. The cost of the television is \$276.45, including tax. She has \$90 saved. She will babysit for three months to save the remaining amount of money needed to buy the television. She will earn the same amount of money each month. How much money must Kimberly earn each month to save the exact remaining amount needed?

WORK SPACE:

Websites and Resources:

<http://www.thinkingblocks.com/> (app)

www.thesingaporemaths.com (online lessons)

<http://www.thedailyriff.com/WordProblems.pdf>
(examples)

