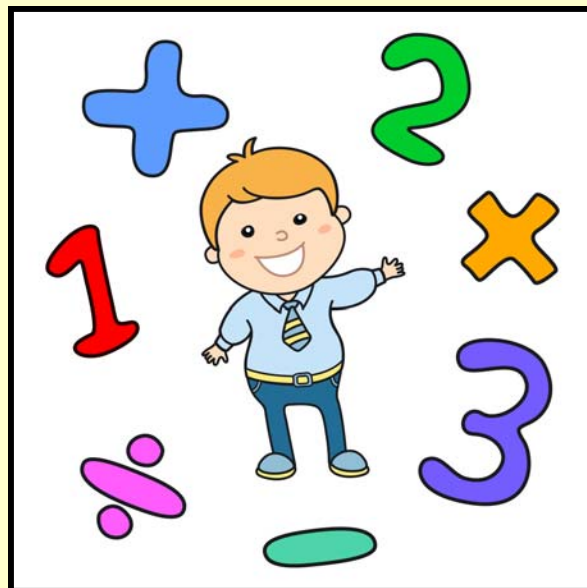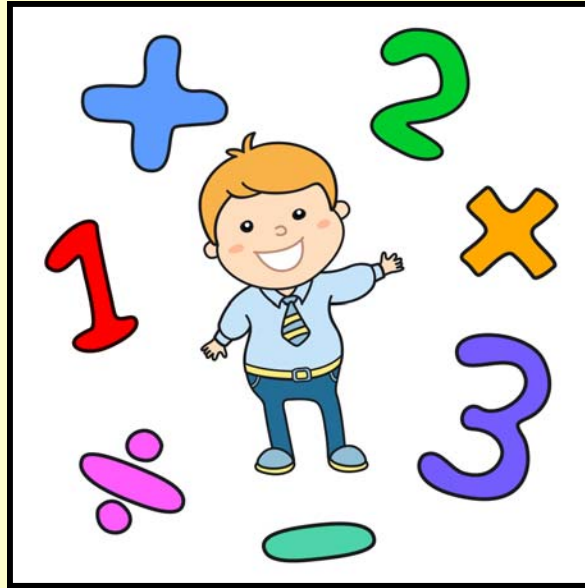# Math Success

Word Problems

Grade Three

By Jean Roberts

Word Problems - Grade Three by Jean Roberts

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Math Success Word Problems - Grade Three

We learn to do mathematics in order to solve problems in our lives. We use math every day and we use the basic math processes to help find the answers.

The students need to be able to transfer the basic math procedures into everyday situations and this is why we put emphasis on word problems. There is often more than one possible way of finding the answer, and this creative thinking should be encouraged.

Word problems are a horror for many older students. There are several possible reasons why….

1. Teachers and parents have a horror from their elementary years and unconsciously pass it on.

2. In the early years children are given problems that are beyond their comfortable reading level. If reading becomes the problem - then no wonder the math gets lost.

3. Students are sometimes just expected to understand problems, without being taught strategies as they are in other parts of the curriculum.

4. Some children find it difficult to visualize the problem.

Strategies:

1. Make sure that all students can read the problem.

2. What information does the problem provide?

3. What does the problem ask you to find out?

4. Look at the numbers in the problem. Will the answer be larger or smaller than the largest number in the problem? If it will be larger, you will usually add (or multiply). If smaller you will usually subtract (or divide).

5. Are there key words? If the problem has the words 'in all' or 'all together' that tells you to add. If you see the words 'how many/much more' or 'difference' - that tells you to subtract.

6. Drawing a picture helps the student to visualize the problem. You may want to use manipulatives to show the work.

7. Printing an equation helps the student see what to do in mathematical terms.

8. Printing a sentence takes the student back to what the problem asked for.

Using this book:

The ideas presented in the teacher's guide for each problem are to be used at your discretion. If your students know the strategies and are able to do the problems without direction, that is good. The strategies presented can be used in the beginning of the school year and then lessened as the students become more proficient.

Do not allow children to become frustrated with either the reading or the problems themselves. If they do become frustrated, they will grow to dislike word problems and will not put in the effort necessary. Keep the lessons fun and give help to children who struggle with the work. Give all the students time to try and work through the problems on their own, after discussing the strategies.

Be excited and delighted with different ways of coming to the answer. Share the different solutions.

The problems are numbered 1 to 150. The teacher's page also has the *Math Success Grade Three* matching lesson number. Some of the problems are different than the ones in the lesson book - but this shouldn't be a 'problem'.....

Photocopying:

There are several ways to use the problem book.

You can print out the entire book beginning with the students' problem 1 page, double siding the pages (single to double sided), This will give a book of only the students' pages. Then these can be put in coil bindings or one inch binders.

Or ....Photocopy single to double-sided the pages the students will need for a week or a month and put them into duotang folders.

Or ..... Photocopy the student pages single-sided, and 'group' them so you have enough of one problem for the children in a stack, and cut the problems apart so you give out the one problem each day.

61. (13.1) Mike had $2.65 and he wanted to buy a Star Wars figure. The one he wanted cost $3.90. Then there was 27¢ tax on the figure. How much did it cost in total?

- What does the question tell you?
- What do you want to find out?
- Is there a word 'clue'? (in total)
- Print an equation, Do the work in the box.
- Print the answer in a sentence: The figure costs $4.17 in all.

How much money does Mike have to save before he can buy the figure?

- What do you want to find out?
- What will you do to find out?
- Print an equation. Do the work in the box.
- Print the answer in a sentence: Mike needs $1.52 more.

62. (13.2) The teacher handed out straws for counting. She gave 56 to Megan, 82 to Katie and 78 to Peter. How many did the students have all together?

- What does the question tell you?
- What do you want to find out?
- Is there a word 'clue'? (all together)
- Print an equation, Do the work in the box.
- Print the answer in a sentence.   There were 216 straws all together.

How many more did Katie have than Megan?
- What do you want to find out?
- What will you do to find out?
- Print an equation. Do the work in the box.
- Print the answer in a sentence. Katie had 26 more than Megan.

Make up more problems.

61.

Mike had $2.65 and he wanted to buy a Star Wars figure. The one he wanted cost $3.90. Then there was 27¢ tax on the figure. How much did it cost in total?

My work:

Print an equation: _____

Print a sentence: _____

_____

How much money does Mike have to save before he can buy the figure?

Print an equation: _____

Print a sentence: _____

_____

62.

The teacher handed out straws for counting. She gave 56 to Megan, 82 to Katie and 78 to Peter. How many did the students have all together?

Print an equation: _____

Print a sentence: _____

_____

My work:

How many more did Katie have than Megan?

Print an equation: _____

Print a sentence: _____

_____

63. (13.3) Make an increasing number pattern with one rule. Add the same number each time as in skip counting. Pick a starting number and begin a pattern. Make a rule for your pattern. "My pattern begins at ___ and adds __each time."… for example. Share the patterns.

- Discuss the words 'increasing'.
- Discuss skip counting, and that these are patterns - but talk about others. They can begin on any number.

- After the students have made their own patterns, share a few of the rules they have made with the class.

64. (13.4) Megan had an ant farm with 65 ants, and Mike had one with 79 ants. How many ants were there all together? How many more ants did Mike have than Megan?

- This is a two step problem. Do the following for both parts.
- Talk about the steps to do a problem.
- What does the question tell you?
- What do you want to know?
- What will we do to find out? Are there word clues? ('all together', nd for the second part, 'How many more')
- Print an equation.
- Print a sentence.

63.

Make an increasing number pattern with one rule. Add the same number each time as in skip counting. Pick a starting number and begin a pattern. Make a rule for your pattern.

Make a rule for your pattern.

My pattern begins at _____ and adds _____ each time.

64.

Megan had an ant farm with 65 ants, and Mike had one with 79 ants. How many ants were there all together?

Print an equation: _____

Print a sentence: _____

_____

How many more ants did Mike have than Megan?

Print an equation: _____

Print a sentence: _____

_____

My work:

65. (13.5)   The restaurant had four different sandwiches on the menu. There was a chicken sandwich, an egg salad sandwich, a cheese and ham sandwich, and the last choice was a roast beef sandwich. What is the favourite sandwich of the students in the class? How will you find out? How can you show this on a graph? Make up a few math problems about the results.

- Have a show of hands to show the favourite sandwich - or if you have time, let the students collect the data themselves. If they do, the students they ask could put their initials into each small square in the graph to keep track of who has been asked.

- Label the graph on the side - put initials for the sandwiches, and put the numbers at the bottom.

- Fill in the top horizontal bar graph with colour.

- What does the graph tell you? Write two math problem using the data: What sandwich is the favourite? What sandwich is the least favourite? What is the difference between the number of people who like _____ and those who like _____ best? Etc.

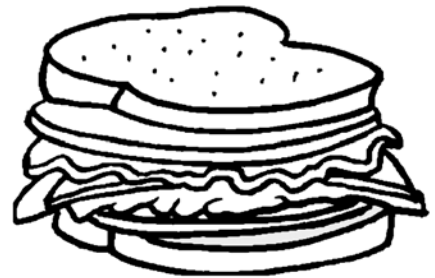- Share the questions and answer them.
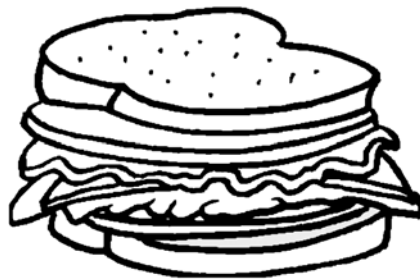
65.

The restaurant had four different sandwiches on the menu. There was a chicken sandwich, an egg salad sandwich, a cheese and ham sandwich, and the last choice was a roast beef sandwich. What is the favourite sandwich of the students in the class?

_____
_____
_____
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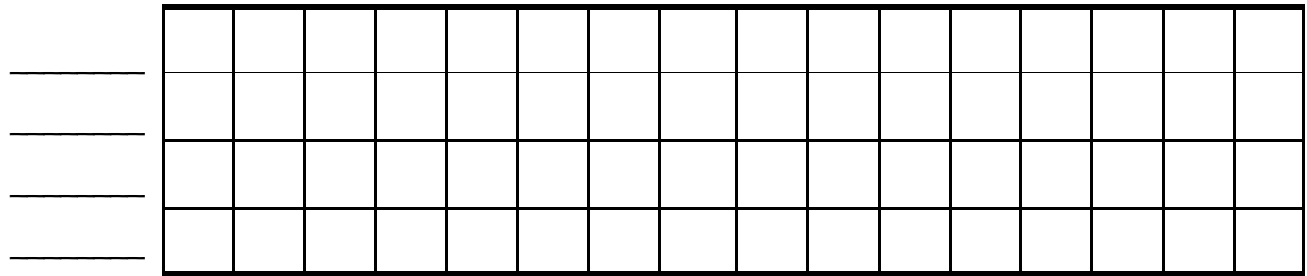
1   2

Number of Students

Fill in the graph with your data.

Make up two math problems about the results.

1. _____

_____

_____

_____

2. _____

_____

_____

66. (14.1)   Estimate the perimeter of your classroom.

- Discuss these questions:

What unit of measure would we use?

How can we find the actual measure?

- Print the estimate.

- Discuss the meaning of the word 'perimeter'.

- What do we know about finding the perimeter of a rectangle?
If your classroom is not a rectangle, discuss the shape. Are any two walls the same length?

- If you have a rectangular classroom, discuss ways to make it easier - measure the length and width and double it.

- What measurement unit will you use? A kilometre? A centimetre?

- How can we actually do the measuring? How can we keep track of what we have measured? You can use a metre stick, or a long tape measure…… but neither of these will be long enough to measure a wall.

- Find the actual perimeter.

- Discuss the estimates. Were they sensible?

Estimate the perimeter of your classroom.

Draw the shape of your classroom.

Estimate the perimeter. _____

What measurement unit will we use? _____

How can we find the actual measure? What will we use?

_____

_____

What are the measurements of each wall? _____

_____

What is the perimeter of the room? _____

Print an equation to show the perimeter. _____

My estimate was _____ . (sensible, not very sensible)

67. (14.2) The teacher brought a bag of candy for her 25 students. The students counted the candy, and there was 340 pieces. How many pieces did each student get? How did you solve the problem?

   - This is a problem that can be done several ways. Give the students time to think it through and try to come up with an answer. You will see which children can use numbers well. Can they do this mentally? The students who can do not need to fill in the 'My work' section.

   - There will be some left over, of course.

   - Ask your students to explain how they found their answers, without giving the answer away.

   - The easy way, of course, is to understand that there are 4 x 25 for each 100 - and then 3 hundreds (3 x 4) would equal 12 - and then one more for the 40.

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68. (14.3) Make an decreasing number pattern with one rule. Subtract the same number each time. Pick a starting number between 50 and 60 and begin a pattern. Make a rule for your pattern. "My pattern begins at ___ and subtracts __ each time."

   - Discuss the word 'decreasing', meaning getting smaller.

   - Discuss skip counting, and that these are patterns - but talk about others. They can begin on any number between 70 and 80.

   - After the students have made their own patterns, share a few of the rules they have made with the class.

67.

The teacher brought a bag of candy for her 25 students. The students counted the candy, and there was 340 pieces. How many pieces did each student get?

My work:

How many pieces did each student get? _____

How did you solve the problem? Can you print an equation for what you did?

_____

68.

Make an decreasing number pattern with one rule. Subtract the same number each time. Pick a starting number between 70 and 80 and begin a pattern.

Make a rule for your pattern.

My pattern begins at _____ and subtracts _____ each time.

69. (14.4) Estimate the perimeter of the classroom door.   - Discuss these questions:

- What unit of measure would we use? How can we find the actual measure?
- Discuss the meaning of the word 'perimeter'.
- Print the estimate.
- What do we know about finding the perimeter of a rectangle?
- What measurement unit will you use?

- How can we actually do the measuring? How can we keep track of what we have measured? You can use a metre stick, or a long tape measure.

- Find the actual perimeter.

- Discuss the estimates. Were they sensible?

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70. (14.5) Discuss patterns. Patterns can be found in many places. We see patterns when we skip count. When we skip count we are adding the same number each time. Begin at 0 and make an increasing number pattern by adding 8 each time. Go to 80.

- As you count up by 8, the ones number is decreasing by 2 each time. Can the students explain why that happens?

- This is counting by 8 - and the answers are in the 8 times table.

- When the student have made the pattern and talked about the 'trick', can they count by 8 without looking at their patterns?

69.

Estimate the perimeter of the classroom door.
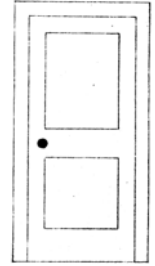
Estimate the perimeter. _____

What measurement unit will you use? _____

How can we find the actual measure?

_____

_____

What is the perimeter of the door? _____

Print an equation to show the perimeter. _____

My estimate was _____ . (sensible, not very sensible)

70.

Patterns can be found in many places. We see patterns when we skip count. When we skip count we are adding the same number each time. Begin at 0 and make an increasing number pattern by adding 8 each time. Go to 80.

Can you see a 'trick'? If you can, explain an easy way of making this pattern.

_____