Mathematics

Activity Book 1

Math Problem-Solving

Teacher Edition

GRADES 4-5

Book 1

MATHEMATICS

NewPath LEARNING®

Contents

Have a Guess

❏ Use the "Guess and Check" procedure to find the solution to this problem:

Your new class has 30 students in total. There are four more boys than girls in the class. Use the "Guess and Check" method to find out how many boys and how many girls are in the class. Use the grid below to help you – remember, write in what you know first.
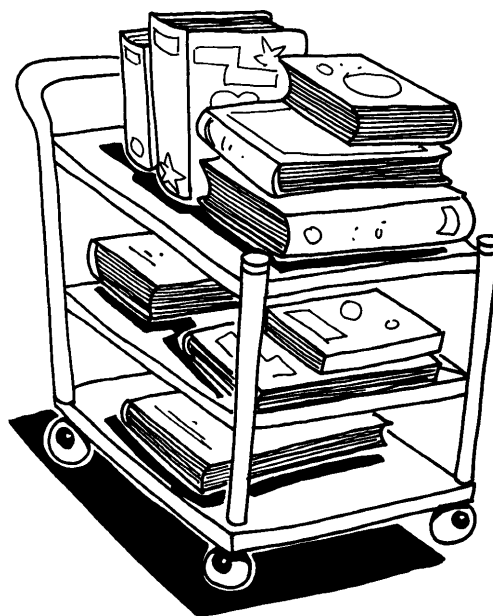
1st guess	2nd guess	3rd guess	4th guess	Answer
				Girls
				Boys
				Total

The solution is 13 girls and 17 boys.

How many guesses did you need? _____

❏ Now try solving the next problem by yourself. Use the grid below and write in what you know before you have your first guess.

It is your turn to help the Library assistant put away returned books on the shelves. She tells you that there are 7 more fiction books than non-fiction books to be replaced, and that altogether, 55 books need replacing. How many of each are there?

1st guess	2nd guess	3rd guess	4th guess	Answer
				Fiction
				Non-fiction
				Total

Desired Outcomes:
Understands mathematic conjectures as more than simply a guess, makes straightforward tests of conjectures and discards those that fail the test.
Calculates with whole numbers, money and measures, drawing mostly on mental strategies to add and subtract two-digit numbers and for multiplications and divisions related to basic facts.
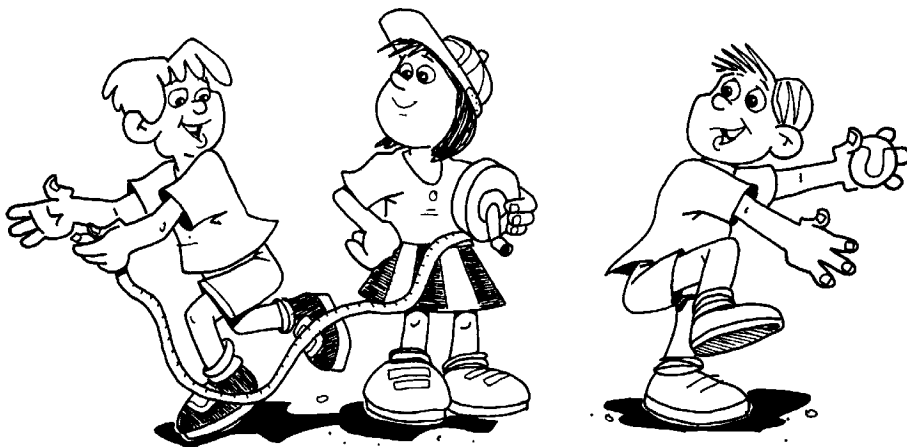
Name: _____

The Longest Throw

You can use the "Guess and Check" strategy to solve practical measurement problems as well. The only difference is that you are working with length, mass, area or volume and capacity instead of just with numbers.

❏   Try using the strategy to solve this:

Your school sports day includes an event of "longest throw", where each person throws a baseball as far as they can. At a training session, one of your friends threw the ball 50 centimeters further than you. The combined distance of both of your throws was 49.5 meters. What was the distance of each of your throws?

Solve the problem using the "Guess and Check" strategy.

Use this space to draw up a grid. Work out what headings you will need.

Desired Outcomes:
Understands mathematic conjectures as more than simply a guess, makes straightforward tests of conjectures and discards those that fail the test.
Calculates with whole numbers, money and measures.