Diagnostic
TASK

Find the Solutions   Years/Grades 3–7

Purpose

To find out which strategies students use to solve addition, subtraction and multiplication problems mentally.

Producing work samples

Whole class or small group activity

Provide each student with either of the Set A, B or C of the word problems. Ask students to work the problem out and to write an explanation of how they solved it.

Individual Interview

Provide the student with the problems one at a time, in written form, and ask them to solve it mentally. After they have given you the answer, ask them to explain how they solved the problem. Ask for example, *what did you do in your head to work out the answer?*

Record the strategies described by each student in the same box as the word problem.

Find the Solutions

Name _____ Year/Grade _____ Date _____

On the bus there are 25 children from Mr Bender's class and 30 children from Mr Tubby's class. How many children are on the bus?	There were 100 paper clips in the box. We have used 37 of them. How many are left?
Mum made 24 pancakes in the first batch and 18 in the second batch. How many pancakes did she make?	Sean's family are on the way to town. They have already travelled 15 kilometres and town is 65 kilometres from their home. How far do they still need to travel to reach town?
There are 18 slices of bread in a loaf. How many slices will there be in 5 loaves?	There was $120 in $10 notes. How many notes should there be?

Find the Solutions

Name _____ Year/Grade _____ Date _____

In Joe's school each class has 25 children in it. The school has 16 classes. How many children in the school?	Crystal had 375 papers to deliver. She has delivered 127. How many does she still have to deliver?
Every week Ted earns $235. Does he earn more or less than $900 every 4 weeks? How do you know?	Jeremy has delivered 226 papers. How many more does he have to deliver until all of the 537 papers in his paper round are delivered?
Abi has two short paper rounds. She delivers 374 in one round and 227 in the other. How many papers does she deliver altogether?	There were 1035 papers to deliver and 10 delivery people? How many papers do they each deliver?

Name _____ Year/Grade _____ Date _____

15 x 16	25 + 30
375 − 124	24 + 18
226 + _____ = 537	18 X 5
374 + 227	100 − 37
235 X 4 Estimate, is this more or less than 900? Why?	15 + _____ = 65
1035 splits into groups of 10	120 splits into groups of 10
27 X 16	