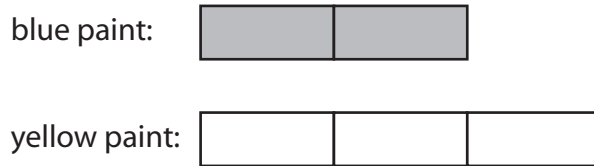


Using Singapore Strip Diagrams to Solve Ratio Problems

Suppose a certain shade of green paint is made by mixing 2 pails of blue paint with 3 pails of yellow paint.

The textbooks used in Singapore often help children figure out how to solve ratio problems by using simple strip diagrams like the one shown here.



1. Explain how to solve the following problems about the paint using a strip diagram.
 - (a) You want to make the same shade of green paint as above. If you will use 40 pails of blue paint, how many pails of yellow paint will you need?
 - (b) You want to make the same shade of green paint as above. If you will use 48 pails of yellow paint, how many pails of blue paint will you need?
 - (c) You want to make the same shade of green paint as above. If you want to make 100 pails of green paint, how many pails of blue paint and how many pails of yellow paint will you need?
2. Show how to use a ratio table to solve problems (a), (b), and (c) above. Start by making a table. Then describe “vertical” and “horizontal” relationships in the table (as we have done before). Use these relationships to solve the problems in different ways.