

# Multiplication strategy assignment

There are many different ways that have been used throughout the world to solve multiplication and division problems. People have found a strategy that is easy for them to use and have applied it to solve problems. Different cultures have used different methods that have worked for them and have even used different symbols to represent numbers. There is no one correct strategy!

## Task

- 1) You are to investigate one of the following multiplication methods that have been used by different cultures at one time in their history
  - Egyptian multiplication
  - Chinese multiplication
  - Russian multiplication
- 2) Investigate the number system of the country. Did they use symbols for numbers? If they did, construct a table showing the symbols they used, and how they relate to our numbers. If they did not, what did they use instead?
- 3) Investigate their method for solving multiplication problems, and write out instructions about how the method works
- 4) Use the method you have investigated to find answers to the following multiplications:
  - (a)  $23 \times 12$
  - (b)  $145 \times 62$
  - (c)  $248 \times 77$
  - (d)  $74 \times 34$
  - (e)  $387 \times 664$Next to each answer, show how this would be written in symbols from this other country.
- 5) Explain *why* the method works and gets the right answer to the problems

## Presentation

All information and problems are to be displayed on a poster. You may like to:

- include a border, decorated in some appropriate way (for example, using symbols representing numbers, or a geometric pattern);
- Have a title showing the method you have chosen to explain;
- Do each of the tasks on coloured paper, and paste this onto your poster to make it colourful;
- Include relevant pictures to make your poster eye-catching.

Some information sheets have been provided, but you may like to do extra research for yourself.

# Multiplication strategy marking sheet

Marker's name:

Project work by:

## Part 1: Presentation

- 0 marks Messy and untidy. Hard to follow what strategy is being shown or how the strategy works. It may not be properly finished.
- 1 mark The poster may be finished, but it is not eye-catching or well laid out – the writing may be untidy and doesn't clearly explain what is going on.
- 2 marks There is good use of colour and a nice border, but its hard to read. There might not be enough explanation to help make sense of the strategy
- 3 marks Beautiful, easy to read, and the writing is neat. Uses colour nicely. A nice border and relevant pictures have been used.

Score:

## Part 2: The multiplication strategy:

Strategy named 1 mark

Score

### The number system

1 mark The symbols used in the country are shown and how these are used to show numbers is well-explained. A table shows our numbers compared to theirs

### How the strategy works is explained with a set of instructions

- 1 mark Explanation is hard to understand
- 2 marks Explanation is easy to follow, and the instructions sort of make sense, but there is no example to help me see how it works
- 3 marks Explanation is easy to follow, and an example helps me see and understand how it works

### Explain what sort of numbers and problems the strategy is useful for

1 mark The 5 problems are all solved using the strategy

### Explanation of why the method works.

1 mark A clear and simple explanation is given that explains why doing things this way always gets the right answer.

Total out of ten