# Highest Common Factor – Gentle Fraction

## Task 1

Here is some pseudocode for working out the highest common factor of 2 numbers.

Set **numerator** variable to what the user enters

Set **denominator** variable to what the user enters

Set variable **a** to numerator

Set variable **b** to denominator

Do

If a>b Then

Set a to a-b

End if

If b>a Then

Set b to b-a

End if

Loop until a=b

Set **hcf** variable to a

Output hcf

1. Explain what is meant by the term **highest common factor**. Use an example to make your point. You can look up this information online if you like but must explain in your own words and create your own examples.
2. This is pseudocode. It is written like this so it describes the program in any programming language. When you write a program from pseudocode, you have to write each statement in the correct format for Visual Basic. The bold words in the pseudocode are the variables. You should declare these at the start of the program and they should all be integers. Write the rest of the program and test that it works.

## Task 2

numerator🡨numerator / hcf

denominator 🡨 denominator / hcf

Output “{0}/{1}”,numerator, denominator

1. Use the pseudocode above to make it so that the program now simplifies a fraction that you enter and outputs the result for you. The arrow is used when we assign a value to a variable. You write an equals sign for this.
2. Show how you tested that the program worked.