

# The Fundamental Theorem of Arithmetic

## Teacher notes

### Why use this resource?

Once students are clear about the fact that if a prime number  $p$  divides the product  $ab$  then  $p$  divides  $a$  or  $p$  divides  $b$ , they can go on to show that every integer has a unique prime factorisation. This resource gives the steps of a proof, but students have to sort them into the right order. This is a good way to practise working with a more sophisticated proof than most students would come up with themselves at this stage, and gives students the chance to get used to a more formal style of language and argument.