# Solving algebraic expression with exponential functions

is an example of an exponential function.

is an example of an exponential equation.

When solving exponential equations, it is important to identify the base number (usually a prime number) that is common to all the individual terms of the equation.

For example,

; 5 is the base number

= 2401; 7 is the base number

**Worked example**:

The base number is 2

**Worked example 2:**

If

The base number is 3

So taking one term at a time we will find value for

Knowing that we can substitute it into the other equation above

The base number is 2

So the value for

**Worked example 3:**

**Solve the following equation for x:**