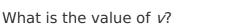# Velocity and force formulae

This task is about using substitution to solve equations with given values.

Wikitoria found some mathematical equations in a textbook. For each equation she knew the value of all but one of the variables.
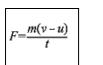For the following equations, work out the value of the missing variable.

a) The first equation gives a formula for the velocity (v) of a car.

$$v = u + at$$

where $u = 20$
$t = 4$
$a = 9$

What is the value of v? _____

b) The next equation gives the force (F) on a ball that is being kicked.

$$F = \frac{m(v - u)}{t}$$

where $m = 5$
$v = 45$
$u = 15$
$t = 3$

What is the value of F? _____