

## Solve Linear Equations

15. Solve the equation  $5 - 2(1 + 3x) = 27$  3 KU
16. Solve the equation  $5 + 3a = a - 15$  3 KU

## Simultaneous Equations

17. Solve **algebraically**, the system of equations  $2a + 4b = -7$   
 $3a - 5b = 17$  3 KU
18. Solve the system of equations  $5a + 3b = 9$   
 $7a - 2b = 25$  3 KU

## Functions

1.  $f(x) = x^2 - 2x$ , evaluate  $f(-2)$  2 KU
2.  $h(t) = 15t - 3t^2$  Find  $h(-2)$  2 KU
3. Given that  $f(x) = \frac{x^3 + x^2 + 2}{5x - 1}$  evaluate  $f(-3)$  3 KU
4.  $f(x) = 9 - 6x$   
(a) Evaluate  $f(-3)$  1 KU  
(b) Given that  $f(t) = 11$ , find  $t$  2 KU
5. The function  $f(x)$  is given by the formula  $f(x) = 3x^2 - 7$ , where  $x$  is a real number.  
(a) Find the value of  $f(-2)$ . 2 KU  
(b) Find the **values** of  $a$  for which  $f(a) = 20$ . 3 KU
6.  $f(x) = \frac{4}{x^2}$  find  $f\left(\frac{1}{2}\right)$  2 KU
7.  $f(x) = 3^x$   
a) Find  $f(4)$  1 KU  
b) Given that  $f(x) = \sqrt{27}$ , find  $x$ . 3 KU
8.  $f(x) = \frac{3}{\sqrt{x}}$  Find the **exact** value of  $f(2)$   
Give your answer **as a fraction** with a rational denominator. 2 KU
9.  $f(x) = 3\sqrt{x}$  Find the exact value of  $f(12)$ ,  
giving your answer as a **surd, in its simplest form.** 2 KU