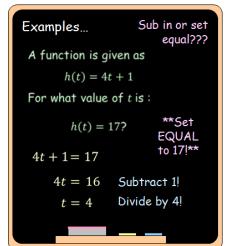
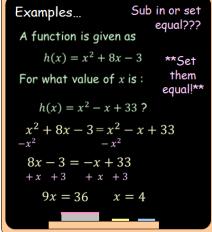
Outcome 2 - Working backwards

Bronze example

Silver example

Gold example



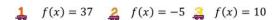


Examples A function is given as	**Set them equal!**
$h(x) = 2x^2 + 5x - 3$ For what value(s) of x is: $h(x) = x^2 + 2x + 1$?	**Set it equal to zero!**
$2x^{2} + 5x - 3 = x^{2} + 2x$ $-x^{2} - 2x - 1 - x^{2} - 2x$	+ 1
$x^{2} + 3x - 4 = 0$ $(x+4)(x-1) = 0$	Factorise **
x = -4 or x = 1	Solve **

Bronze Questions

A function is given as f(x) = 6x + 7.

For what value of x is:



A function is given as g(a) = 3a - 11.

For what value of a is:

$$g(a) = -8$$
 $g(a) = 1$ $g(a) = -10$

A function is given as h(t) = 4t - 5.

For what value of t is:

$$h(t) = 19$$
 8 $h(t) = -17$ **9** $h(t) = -4$

Gold Questions

A function is given as $f(x) = 2x^2 - 2x + 3$.

For what value of x is:

$$f(x) = x^2 + 5x - 7$$

A function is given as $g(a) = 3a^2 + 4a - 9$.

For what value of a is:

$$ag(a) = 2a^2 + 3a - 7$$

A function is given as $h(t) = 7t^2 + 5t + 20$.

For what value of t is:

$$h(t) = 6t^2 - 6t - 10$$

Silver Questions

A function is given as $f(x) = x^2 + 7x - 4$.

For what value of x is:



A function is given as $g(a) = a^2 + 3a + 5$.

For what value of a is:

 $g(a) = a^2 + 23$ $g(a) = a^2 + a + 19$

A function is given as $h(t) = t^2 - 4t + 5$.

For what value of t is:

$$h(t) = t^2 + 29$$
 $h(t) = t^2 - 8t + 6$

Using Functional Notation

Bronze Answers

4.
$$a=1$$
 5. $a=4$ 6. $a=1/3$

Silver Answers

$$3 \quad a = 6$$

Gold Answers

1. x = 5 or x = 2

2. a = 1 or a = -2

3. t = -6 or t = -5