

① Expand and Simplify  
 $(2x+1)(x-3)$

method 1  
 Separation  
 method

$$2x(x-3) + 1(x-3)$$

$$2x^2 - 6x + 1x - 3$$

$$2x^2 - 5x - 3$$

method 2.  
 window method

① Expand and Simplify  
 $(2x+1)(x-3)$

	$2x$	$+1$
$x$	$2x^2$	$1x$
$-3$	$-6x$	$-3$

$$= 2x^2 - 5x - 3$$

to both sides

② Solve

$$\frac{-3 - 2x}{-3} = \frac{4}{-3}$$

$$-2x = 1$$

$$2x = -1$$

$$\frac{2x}{2} = \frac{-1}{2}$$

$$x = -\frac{1}{2}$$

change signs  
 $\div 2$

③ If  $f(x) = x + 5$

Sub 2 in for x (i)  $f(2) = ?$   
 $f(2) = 2 + 5 = 7$

Sub a in for x (ii)  $f(a) = ?$   
 $f(a) = a + 5$

④ If €200 is invested for 5 years at 3% APR the interest is?

$F = P(1+i)^t$

$F = ?$   
 $P = 200$   
 $i = 3\%$   
 $t = 5 \text{ years}$

$F = 200(1 + 3\%)^5$   
 $F = 231$

Interest  
 $I = F - P$

$I = 231 - 200$   
 $= € 31$