

Algebraic Proof

(a)	(b)	(c)
Show that $3x(x + 5) + 2x(x - 5) \equiv 5x(x + 1)$	Show that $(x + 6)(x - 2) + 12 \equiv x(x + 4)$	Show that $(x - 4)^2 + 6x - 16 \equiv x(x - 2)$
(d)	(e)	(f)
Show that $3(8 - x) + 2(5x - 6) \equiv ax + b$ where a and b are integers to be found	Show that $(x + 5)(x - 3) - x(x - 8) \equiv ax + b$ where a and b are integers to be found	Show that $(x + 6)^2 + 4(x - 9) \equiv x(x + a)$ where a is an integer to be found
(g)	(h)	(i)
Show that $(2x + 5)(x - 1) + 3(5 - x) = ax^2 + b$ where a and b are integers to be found	Show that $(x + 4)^2 + (x + 2)(x - 8) = ax(x + b)$ where a and b are integers to be found	Show that $(3x + 4)^2 - (5x + 8)(x + 2) \equiv ax(bx + c)$ where a and b are integers to be found