

Review – Equation solving and the cross multiplying method

Solve the following equations

Part 1

$\frac{x}{2} = 22$	$\frac{3x}{5} = 11$	$\frac{15x}{7} = 6$	$5 = \frac{3x}{8}$
$\frac{3x}{2} + 3 = 22$	$\frac{5x}{7} - 4 = 11$	$\frac{3}{2x} = 11$	$\frac{14}{3x} = 6$

Part 2

$\frac{x+2}{3} = 11$	$\frac{3x+2}{5} = 3$	$\frac{5}{3x+2} = 11$
$\frac{4x+2}{3} = \frac{x-7}{5}$	$\frac{3x-2}{3} = \frac{5x+4}{5}$	$\frac{5}{7-2x} = 4$

Part 3

$\frac{4x+2}{3x+7} = \frac{3}{2}$	$\frac{5-2x}{3} = 3x$	$\frac{7x+2}{3x} = 4$
$\frac{1}{5x-3} = \frac{2}{3}$	$\frac{1}{5x-3} = \frac{1}{3x-2}$	$\frac{3-2x}{4x-3} = \frac{2}{7}$

Extension: expand the following brackets

$(x+9)(x+7)$	$(2x+3)(x+4)$
$(3x+4)(2x+5)$	$(5x+3)(2x-4)$
$(x+y)(x+y)$	$(2x+y)(x+y)$
$(3x+z)(2x+3z)$	$(4z-2y)^2$

Simplify the following expressions

$3(x+2) + 11$	$3(2x+8) + 10$
$4(x+2) + 3(x+8)$	$3(2x+8) + 4(3x-10)$
$(x+1)(x+2) + (x+9)(x+3)$	$4(x+9) - 3(x-11)$