

a Make x the subject of $y = \frac{5}{x}$ $x = \frac{5}{y}$ the subject in a denominator	b Make x the subject of $y = \frac{4}{x-1}$ $x = \frac{4}{y} + 1$ a denominator with a bracket	c Make r the subject of $A = \pi r^2$ $r = \sqrt{\frac{A}{\pi}}$ a squared subject	d Make v the subject of $E = \frac{1}{2}mv^2$ $v = \sqrt{\frac{2E}{m}}$ a half and a square
e Make x the subject of $y = \sqrt{x+3}$ $x = y^2 - 3$ undo a square root first	f Make l the subject of $T = 2\pi\sqrt{\frac{l}{g}}$ $l = \frac{gT^2}{4\pi^2}$ a root over a fraction	g Make x the subject of $ax+3 = bx+7$ $x = \frac{4}{a-b}$ the subject on both sides	h Make x the subject of $a(x+2) = b(x-1)$ $x = \frac{2a+b}{b-a}$ expand, then collect the subject
i Make x the subject of $y = \frac{x+1}{x-2}$ $x = \frac{2y+1}{y-1}$ the subject on the top and the bottom	j Make v the subject of $\frac{1}{f} = \frac{1}{u} + \frac{1}{v}$ $v = \frac{uf}{u-f}$ reciprocals	k Make x the subject of $y = \sqrt{\frac{x+a}{x}}$ $x = \frac{a}{y^2-1}$ a root, then the subject twice	l Make x the subject of $y = \frac{3x^2}{x^2+1}$ $x = \sqrt{\frac{y}{3-y}}$ a squared subject twice

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