LINEAR RELATIONSHIPS

Linear relationship are of two forms:

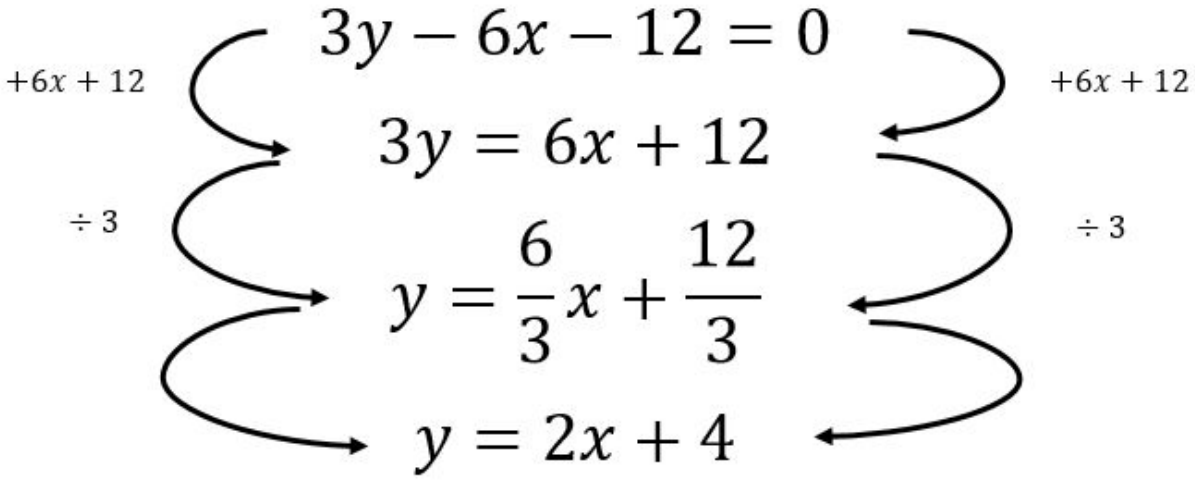
$ay + bx + c = 0$	$y = mx + b$
where a,b and c are constants	where m and b are constants
"Standard form"	"Gradient-Intercept form"
Examples:	Examples:
$2y - 4x - 6 = 0$	$y = 2x + 3$
$y + 3x - 5 = 0$	$y = -3x + 5$
$3y - 3x + 6 = 0$	$y = x - 2$

Counterexamples: $y = x^2$ and $y^3 = x + 5$ are NOT linear relationships

CONVERTING FROM STANDARD FORM TO GRADIENT-INTERCEPT FORM

Any linear relationships can be rearranged to be either in “Standard form” or in “Gradient-Intercept form”.

Example of conversion from standard form to gradient-intercept form



Indeed, the last line looks like “$y = mx + b$”

LINEAR RELATIONSHIPS

These relationships are called "linear" because when graphed, the set of such points align on a line. example: $y = -2x + 2$

x	–3	–2	–1	0	1	2	3
y	8	6	4	2	0	–2	–4