Episode 17 – Different types of line equations

European section, season 01

General form

$$ax + by + c = 0$$

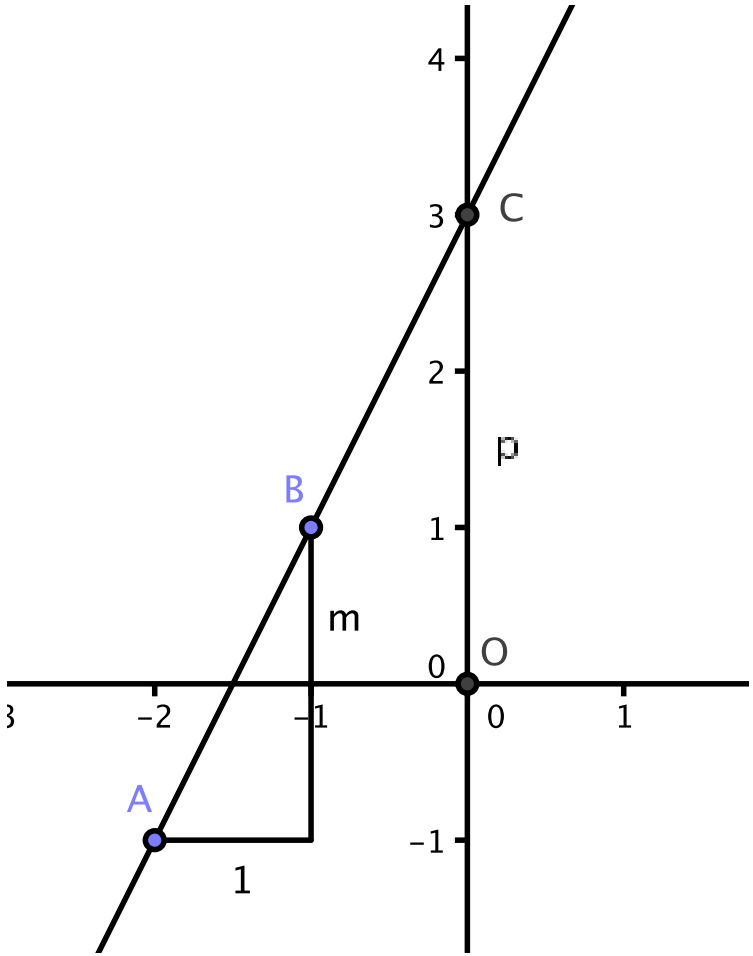
Any line has an equation of this form, and in fact many as it's always possible to apply a coefficient to the whole equation.

Slope-intercept form

$$y = mx + p$$

- m is the slope ;
- p is the intercept.

This form exists and is unique for any line not parallel to the y-axis.



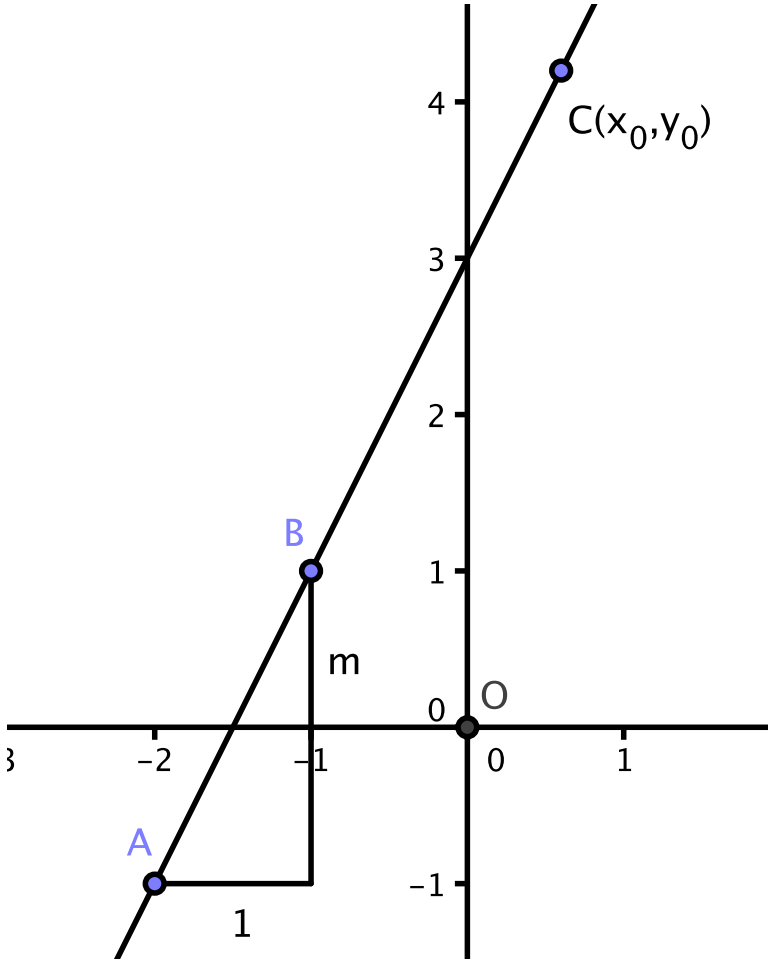
Point-slope form

$$y - y_0 = m(x - x_0)$$

- m is a the slope ;
- (x_0, y_0) are the coordinates of a point on the line.

This form exists for any line not parallel to the y-axis.

It's not unique as any point can be used.

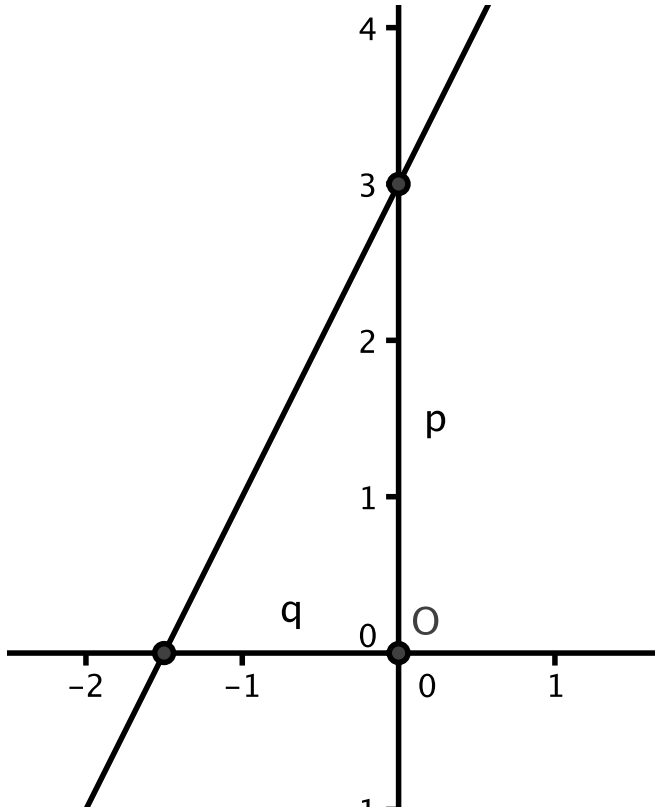


Intercept form

$$\frac{x}{q} + \frac{y}{p} = 1$$

- p is the y-intercept ;
- q is the x-intercept.

This form exists and is unique for any line not parallel to an axis.



Part 1

Part 2

	GF	SIF	PIF	IF
d_1	$3x - 3y + 3 = 0$			
d_2				$\frac{x}{3} + \frac{y}{-3} = 1$
d_3				$\frac{x}{5} + \frac{y}{2} = 1$
d_4		$y = 6x - 11$		