Writing equations of lines :

Depending on what information you are given about the graph of a linear equation, you can use slope-intercept form or the point-slope formula to write the equation.

Slope-intercept form	Point-slope form
$y = mx + b$	$y - y_1 = m(x - x_1)$

In relation to the AIMS tests, you will be expected to write the equation of a line given three different types of ways. They are from two points on a line, the slope and a point on the line, or the graph of the line.

Write an equation given two points on a line

First, you need to find the slope of the line that passes through the two points. After you've found the slope, substitute the coordinates of either point and the slope for the variables in the point-slope formula and solve for y. This will give the linear equation in slope-intercept form.

Write an equation given the slope and a point

If the point you are given is the y-intercept, substitute the slope and y-intercept for the variables in the slope-intercept form.

If the point you are given is not the y-intercept, substitute the coordinates of the point and the slope for the variables in the point-slope formula and solve for y. This will give the linear equation in slope-intercept form.

Write an equation given the graph

From the graph of a linear equation, find the slope and y-intercept. Then substitute them for the variables in the slope-intercept form.