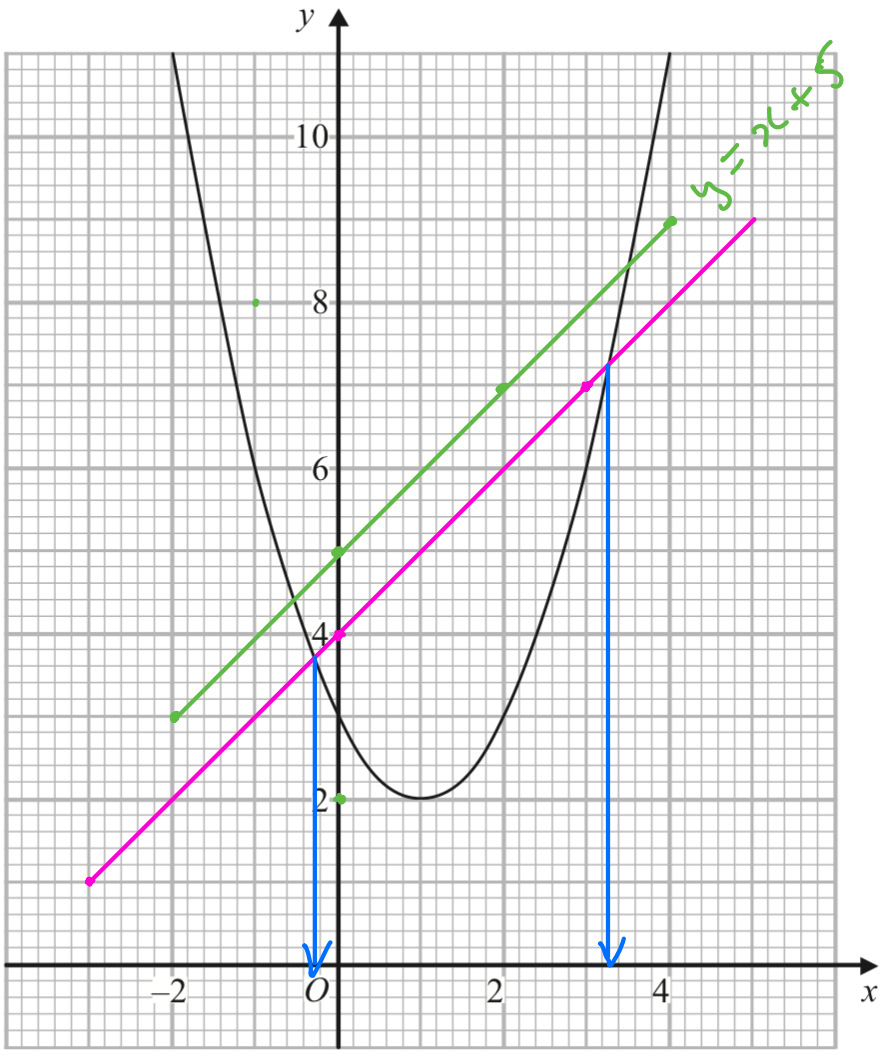
Estimating Solutions to Eqns From Graphs

20 The diagram shows part of the graph of $y = x^2 - 2x + 3$



Solutions
$x = -0.5$
$x = 3.5$

Solution
$x = -0.25$
$x = 3.25$

(a) By drawing a suitable straight line, use your graph to find estimates for the solutions of $x^2 - 3x - 1 = 0$

$y = x^2 - 2x + 3$

$0 = x^2 - 3x - 1$

$x + 4 = + x + 4$

Draw graph of $y = x + 4$

x	-3	0	3	5
y	1	4	7	9

Now use the same graph to find estimates to the solutions of the following equation

$$x^2 - 3x - 2 = 0$$

$$+x \quad +5 \quad = \quad x+5$$

$$x^2 - 2x + 3 = y$$

Draw $y = x + 5$

x	-2	0	2	4
y	3	5	7	9
