

18. (a) Complete the table of values for $y = x^3 - 3x^2 + 2$

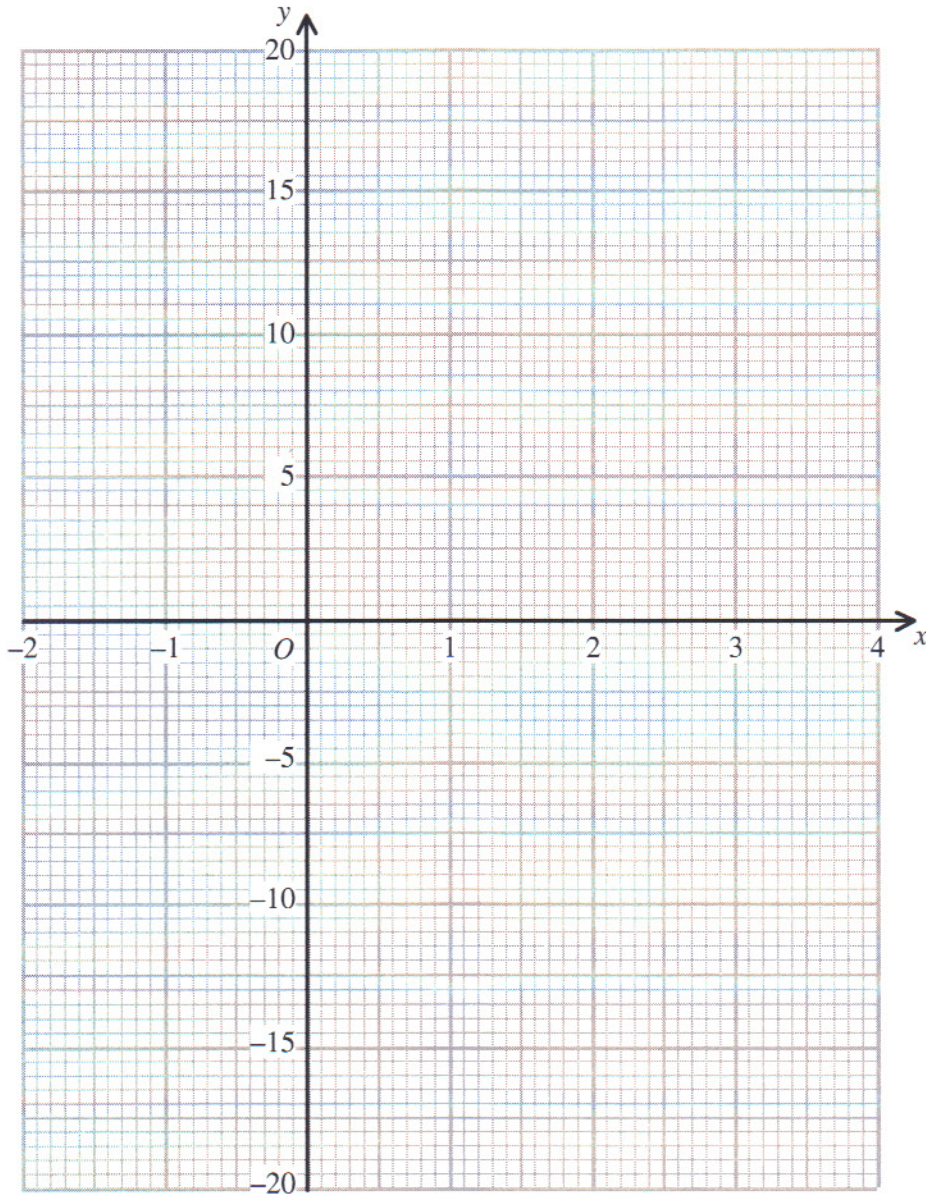
May 04 44

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x	-2	-1	0	1	2	3	4
y		-2					

(2)

(b) On the grid, draw the graph of $y = x^3 - 3x^2 + 2$



(2)

May 04 4H Q18
2/8 cont

(c) Use your graph to find estimates, correct to 1 decimal place where appropriate, for the solutions of

(i) $x^3 - 3x^2 + 2 = 0$

(ii) $x^3 - 3x^2 - 4 = 0$

.....

.....

(4)

(Total 8 marks)

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blank

Q18

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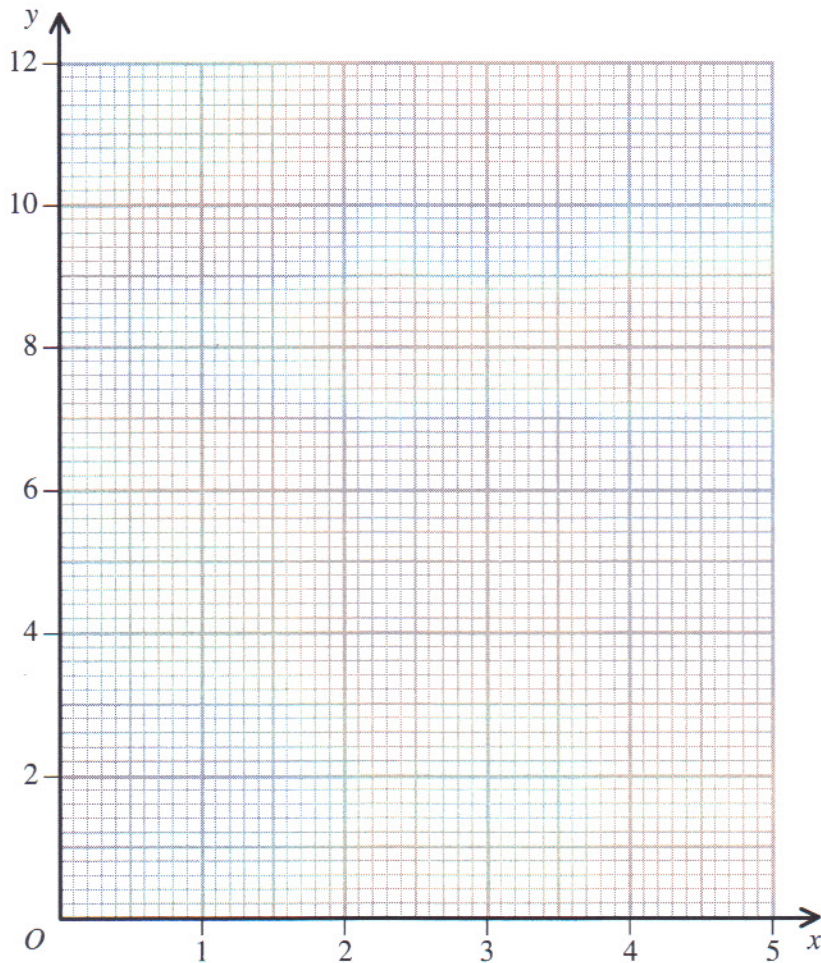
Nov 04 44

19. (a) Complete the table of values for $y = x + \frac{2}{x}$

x	0.2	0.4	0.6	0.8	1	1.5	2	3	4	5
y	10.2		3.9		3	2.8		3.7		5.2

(2)

(b) On the grid, draw the graph of $y = x + \frac{2}{x}$ for $0.2 \leq x \leq 5$



(2)

Nov 04
4H
Q19 cont.

(c) Use your graph to find estimates for the solutions of the equation

$$x + \frac{2}{x} = 4$$

$x = \dots\dots\dots$ or $x = \dots\dots\dots$ (2)

The solutions of the equation $2x + \frac{2}{x} = 7$ are the x -coordinates of the points of intersection of the graph of $y = x + \frac{2}{x}$ and a straight line **L**.

(d) Find the equation of **L**.

$\dots\dots\dots$ (2)

(Total 8 marks)

Q19

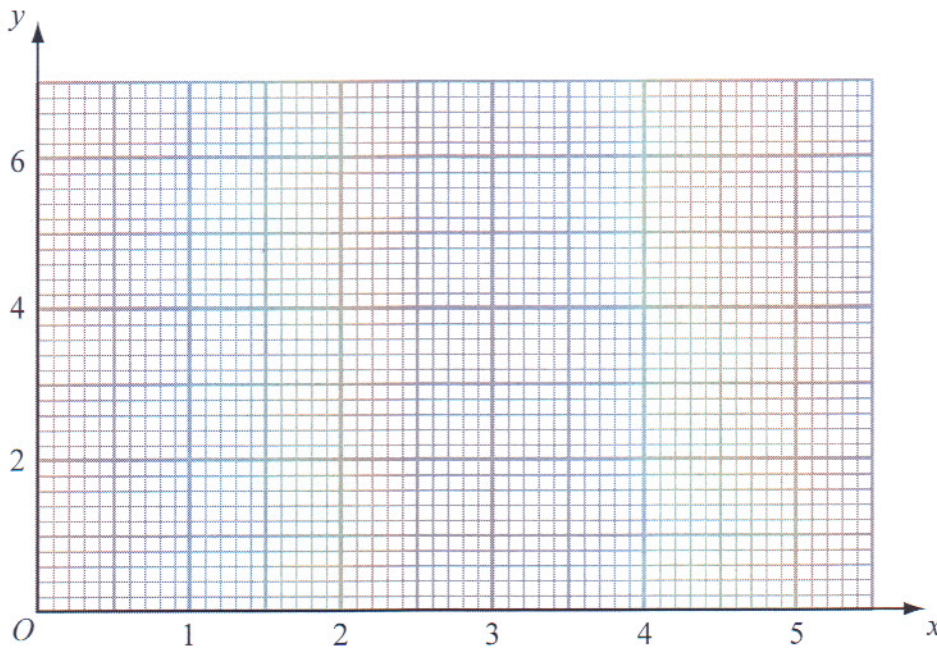
NOV 08 3H

13. (a) Complete the table of values for $y = x + \frac{1}{x^2}$

x	0.5	1	1.5	2	3	4	5
y		2		2.3			5.0

(2)

(b) On the grid, draw the graph of $y = x + \frac{1}{x^2}$ for $0.5 \leq x \leq 5$



(2)



(c) $x = 1$ is a solution of the equation $x + \frac{1}{x^2} = k$ where k is a number.

(i) Find the value of k .

$k = \dots\dots\dots$

(ii) Use your graph to find an estimate for another solution of the equation

$$x + \frac{1}{x^2} = k$$

Give your estimate correct to 1 decimal place.

$x = \dots\dots\dots$

(2)

(Total 6 marks)

Q13

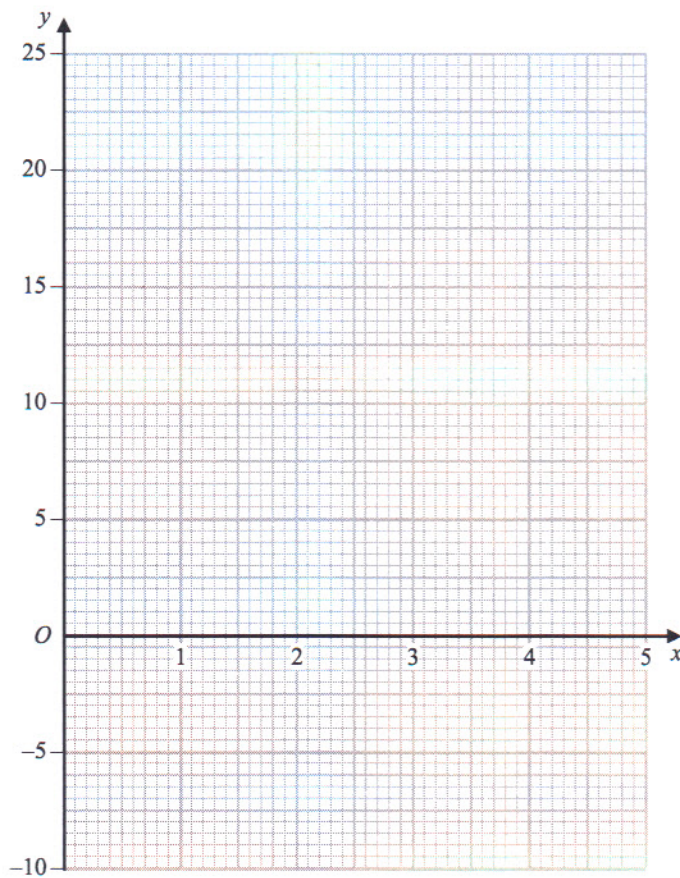
Nov 06 4A

18. (a) Complete the table of values for $y = x^2 - \frac{3}{x}$

x	0.5	1	1.5	2	3	4	5
y	-5.75	-2					24.4

(2)

(b) On the grid, draw the graph of $y = x^2 - \frac{3}{x}$ for $0.5 \leq x \leq 5$



(2)



NOV 06 4H Q18 cont.

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(c) Use your graph to find an estimate for a solution of the equation

$$x^2 - \frac{3}{x} = 0$$

x =
(1)

(d) Draw a suitable straight line on your graph to find an estimate for a solution of the equation

$$x^2 - 2x - \frac{3}{x} = 0$$

x =
(2)

Q18

(Total 7 marks)