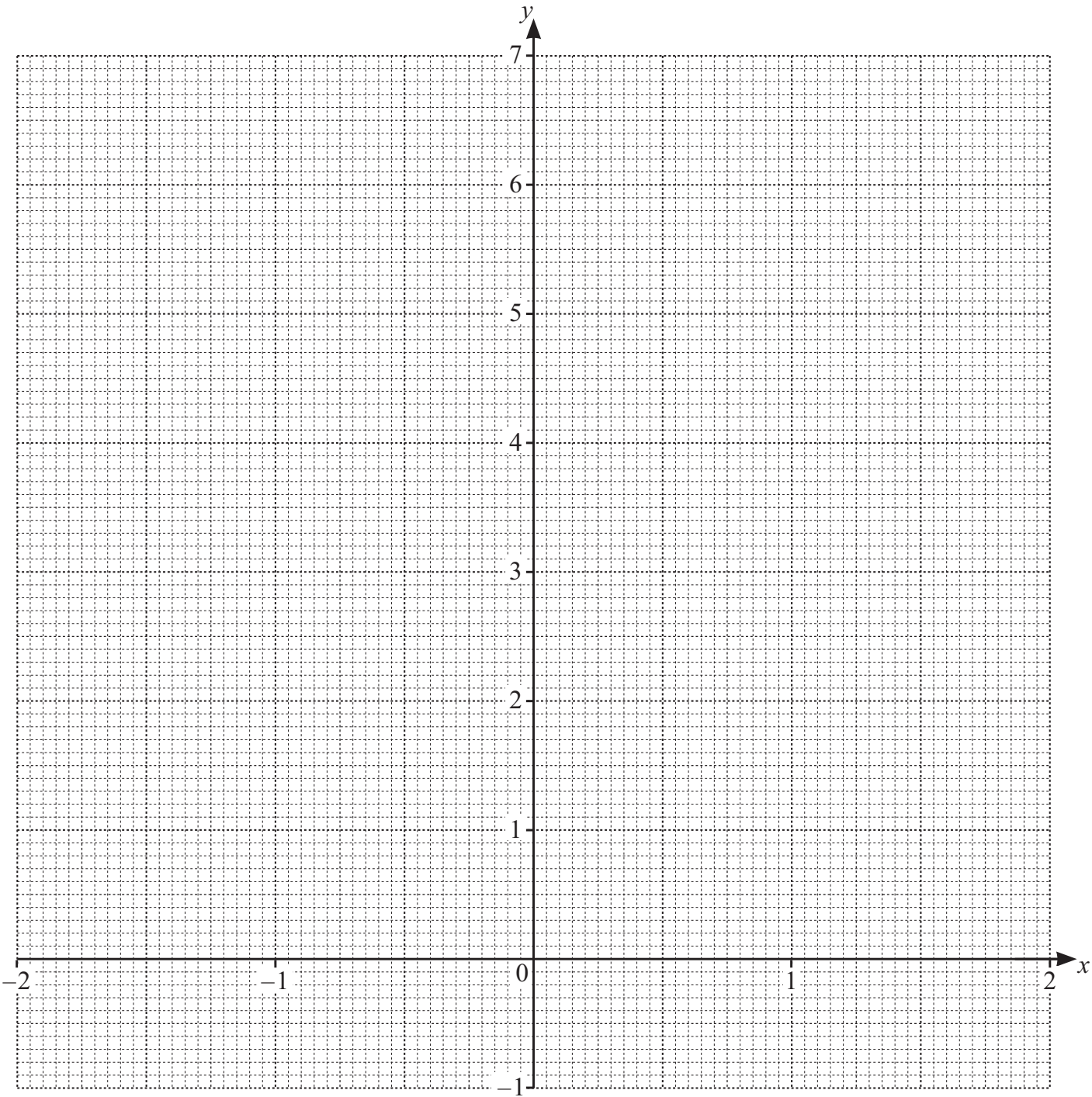


11 The table shows some values for $y = x^3 - 2x + 3$.
Where appropriate, values of y are given correct to 2 decimal places.

x	-2	-1.5	-1	-0.5	0	0.5	1	1.5	2
y	-1		4	3.88	3	2.13	2		7

- (a) Complete the table. [2]
- (b) Draw the graph of $y = x^3 - 2x + 3$ for $-2 \leq x \leq 2$.

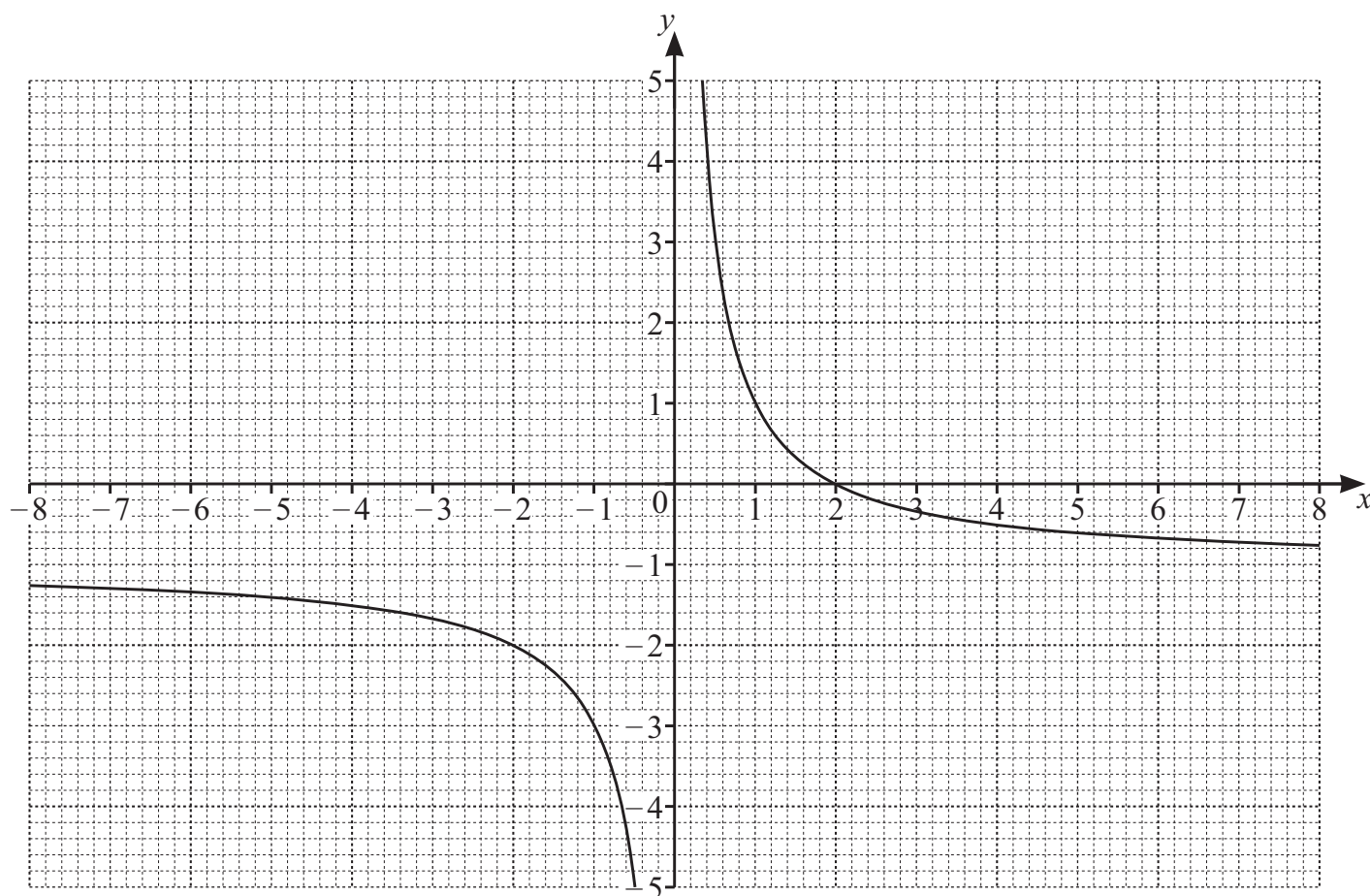


[4]

(c) By drawing a suitable straight line on the grid, solve the equation $x^3 - 2.5x + 1 = 0$.

$x = \dots\dots\dots$ or $x = \dots\dots\dots$ or $x = \dots\dots\dots$ [4]

15



The diagram shows the graph of $y = \frac{2}{x} - 1$.

(a) Write down the coordinates of the point where the graph crosses the x -axis.

(..... ,) [1]

(b) Write down the equation of each asymptote.

.....

.....

[2]

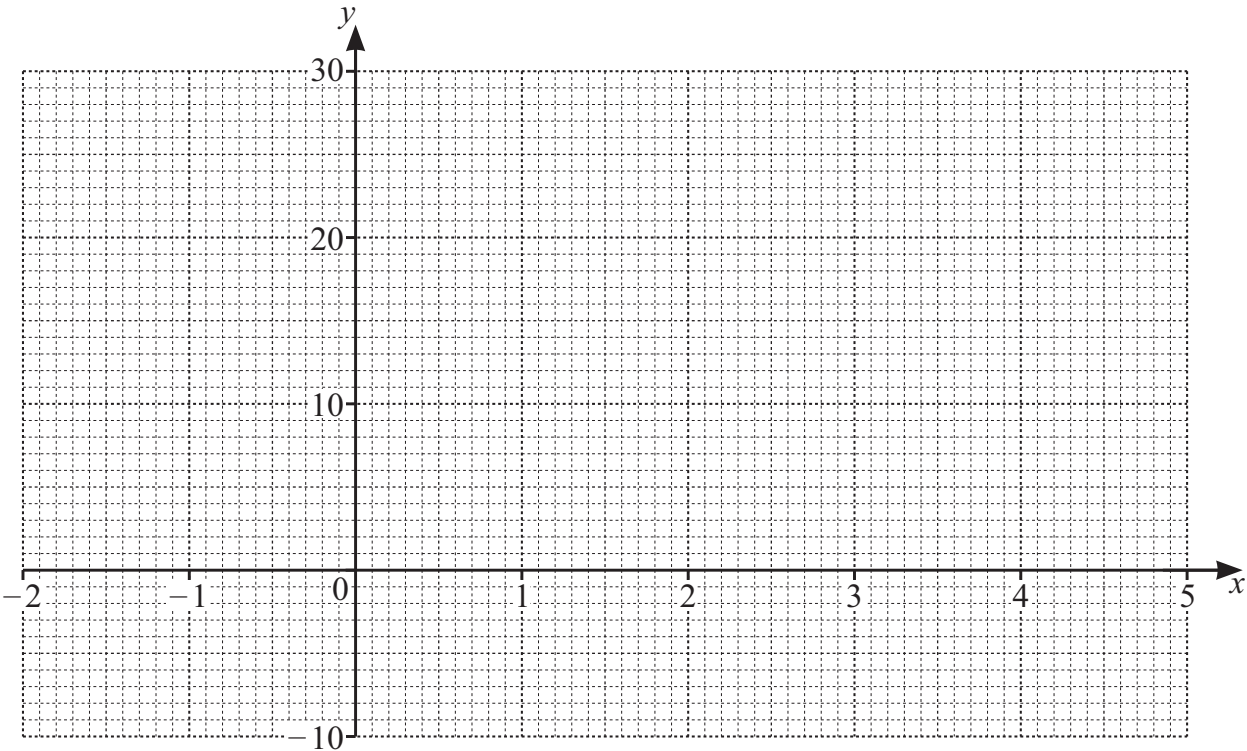
(c) By drawing a suitable straight line on the grid, solve $\frac{2}{x} - x - 1 = 0$.

$x = \dots\dots\dots$ or $x = \dots\dots\dots$ [3]

14 The table shows some values for $y = 5x^2 - x^3 - 4$.

x	-2	-1	0	1	2	3	4	5
y	24		-4		8	14		-4

- (a) Complete the table. [3]
- (b) On the grid, draw the graph of $y = 5x^2 - x^3 - 4$ for $-2 \leq x \leq 5$.



- [4]
- (c) By drawing a suitable straight line on the grid, solve the equation $x^3 - 5x^2 - x + 14 = 0$.

$x = \dots\dots\dots$ or $x = \dots\dots\dots$ or $x = \dots\dots\dots$ [4]