

Question Number	Answer	Notes	Marks																		
7	<p>(a)</p> <table><tr><td>x</td><td>0.8</td><td>1</td><td>1.5</td><td>1.7</td><td>2</td><td>2.5</td><td>3</td><td>4</td></tr><tr><td>y</td><td>5.41</td><td>3</td><td>1.22</td><td>1.13</td><td>1.25</td><td>1.8</td><td>2.56</td><td>4.31</td></tr></table> <p>(b) Draw graph</p> <p>(c) $2x-4+\frac{5}{x^2}=2$ $x=1.2$ or 1.1 (1.168...), 2.6 or 2.7 (2.642....)</p> <p>(d) $2x-4+\frac{5}{x^2}=-2x+8$ Draw $y=-2x+8$ $x=2.8$ or 2.9 (2.846...)</p>	x	0.8	1	1.5	1.7	2	2.5	3	4	y	5.41	3	1.22	1.13	1.25	1.8	2.56	4.31	<p>B2</p> <p>B1 points B1 curve</p> <p>M1</p> <p>A1</p> <p>M1A1</p> <p>M1</p> <p>A1</p>	(10)
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Notes

(a)

B2 for all four correct values, or

B1 for two or three correct values (allow $y = 3.00$ for $x = 1$)

(b)

B1ft for **their** points plotted correctly to within half of a square

B1ft All their points joined in a smooth curve drawn through their points within half a square accuracy. Do not accept sharp points or straight lines

(c)M1 for rearranging $2x + \frac{5}{x^2} = 6$ to give $2x - 4 + \frac{5}{x^2} = 2$ (or for line (or for line $y = 2$ seen on the graph)A1 for $x = 1.1$ or 1.2 AND $x = 2.6$ or 2.7

(d)

M1 for attempting to rearrange $4x + \frac{5}{x^2} = 12$ to give $2x - 4 + \frac{5}{x^2} = ax \pm b$ A1 for a fully correct equation $2x - 4 + \frac{5}{x^2} = -2x + 8$ M1d for attempting to draw their $y = -2x + 8$, provided it is in the form $y = ax \pm b$, where a or $b \neq 0$ { $y = -2x + 8$ goes through points (4,0) (3,2) (2,4) (1,6) (0,8) }A1 for $x = 2.8$ or 2.9 (2.846...)