(d) The table shows the student's results.

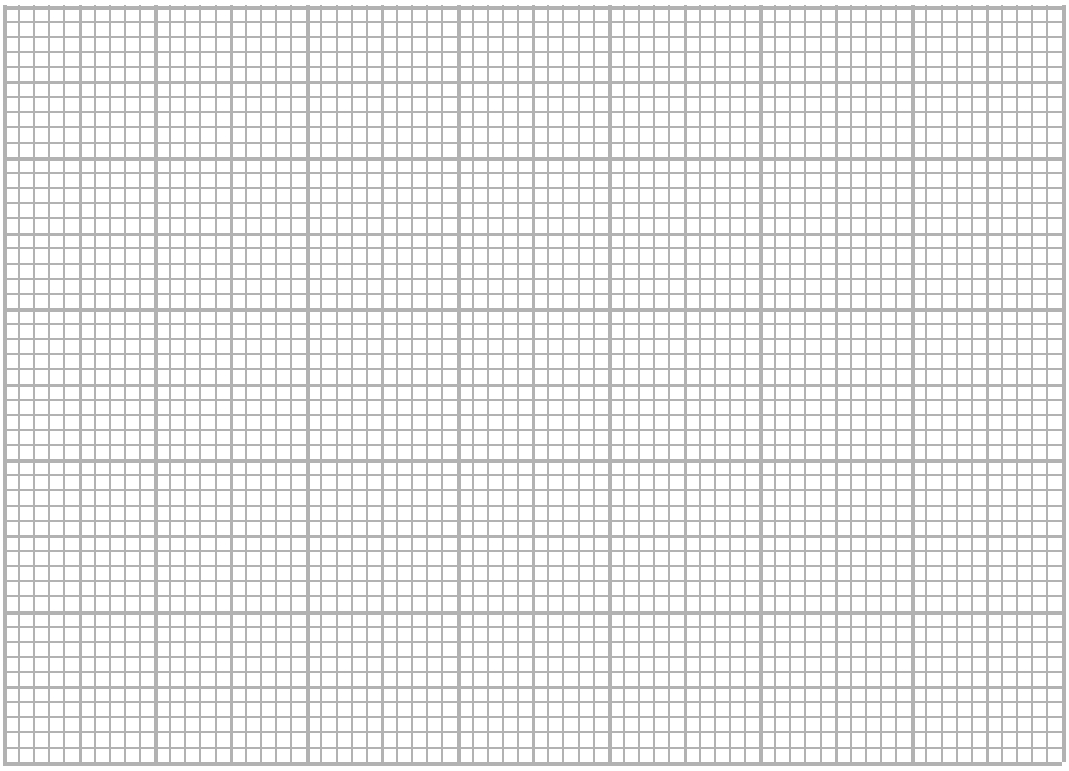
Mass in g	Time taken in s			
	Trial 1	Trial 2	Trial 3	Average (mean)
20	1.72	1.67	1.65	1.68
40	1.23	1.30	1.25	1.26
60	1.11	1.16	1.06	1.11
80	0.99	0.97	1.01	0.99
100	0.95	0.92	0.92	0.93
120	0.90	0.88	0.85	

(i) Complete the table by calculating the average time for a mass of 120 g.

(2)

(ii) On the grid, plot a graph of the average time taken for each mass.

(4)



(iii) Draw the curve of best fit.

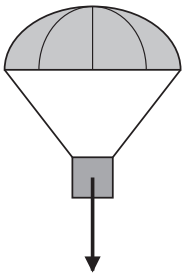
(1)

(e) The student notices that the toy parachute accelerates and then falls at constant speed.

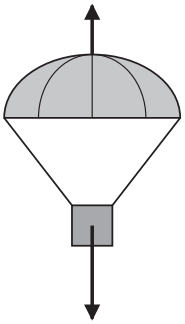
(i) The arrows in the diagrams show the size and direction of the forces acting on the toy parachute at different points during its fall.

Label the forces on the last diagram.

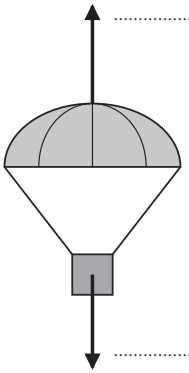
(2)



at the start



part of the way down



near the bottom

(ii) Explain why the toy parachute accelerates and then falls at a constant speed.

(3)

(Total for Question 6 = 17 marks)