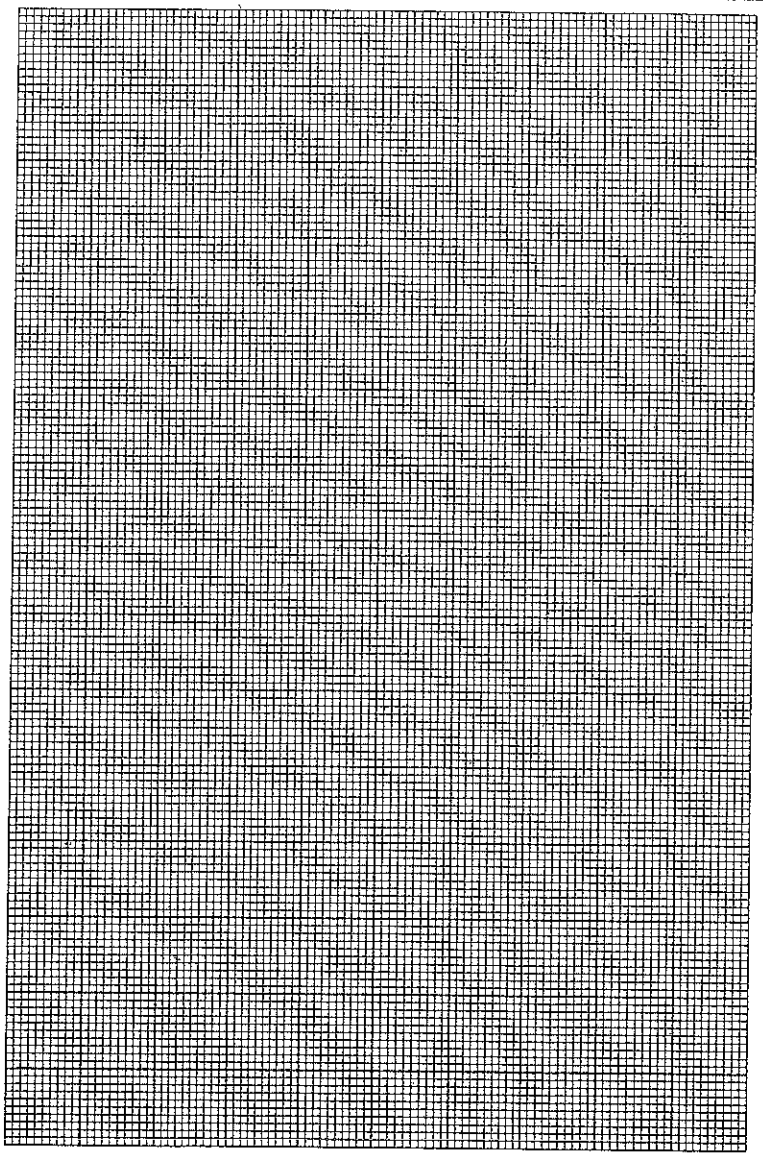
The Helicopter Challenge

What to Do

The table below gives the height of a radio-controlled helicopter, as recorded from a window 30 m above the ground. The helicopter flew slowly through several vertical manoeuvres and then landed safely. Use the table to answer the questions that follow.

Time (s)	Height (m)
0	–30
5	–15
10	0
15	0
20	20
25	40
30	20
35	0
40	–20
45	–25
50	–30

1. Draw a position-time graph to show the motion of the helicopter. Connect all the points with straight lines.



The Helicopter Challenge (continued)

2. Write a short paragraph to describe the motion of the helicopter.

3. When was the helicopter moving up? How do you know?

4. When was the helicopter moving down? How do you know?

5. When might the helicopter have been stationary? Do you have enough information to be sure? Explain your answer.

6. Why were you told to connect all the points on your graph with straight lines?

7. How could you infer from the data that the helicopter landed safely?