Distance–time graphs

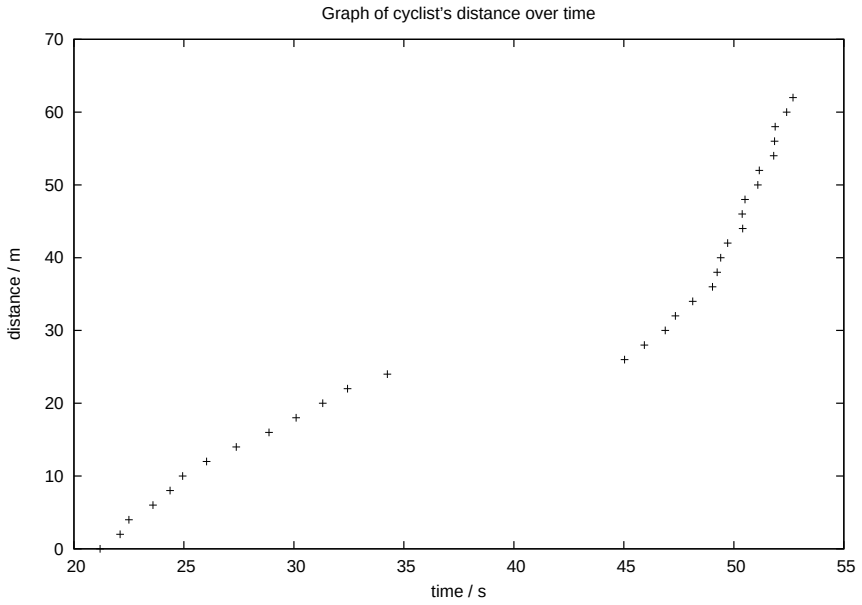
A.C. Norman
Bishop Heber High School

Here is the data we collected on 26 September:

distance / m	time / s
0	21.19
2	22.10
4	22.50
6	23.59
8	24.37
10	24.94
12	26.03
14	27.38
16	28.87
18	30.10
20	31.31
22	32.44
24	34.25
26	45.03
28	45.93
30	46.88

distance / m	time / s
32	47.34
34	48.13
36	49.03
38	49.24
40	49.40
42	49.72
44	50.40
46	50.38
48	50.51
50	51.09
52	51.16
54	51.81
56	51.85
58	51.88
60	52.40
62	52.69

You should use it to plot a distance-time graph, which ought to look like this:



Your homework is to

- finish plotting your graph and stick it into your book,
- listen to the two 'Naked Scientists' podcasts on E:HEBER, and
- answer the questions below.

Questions

1. Describe the bicycle's motion **as accurately as possible** in a few short sentences.
2. What was its average speed over the whole distance?
3. What happened between 35 s and 45 s?
4. What was the speed between 25 s and 35 s?
5. What was going on after 45 s?