

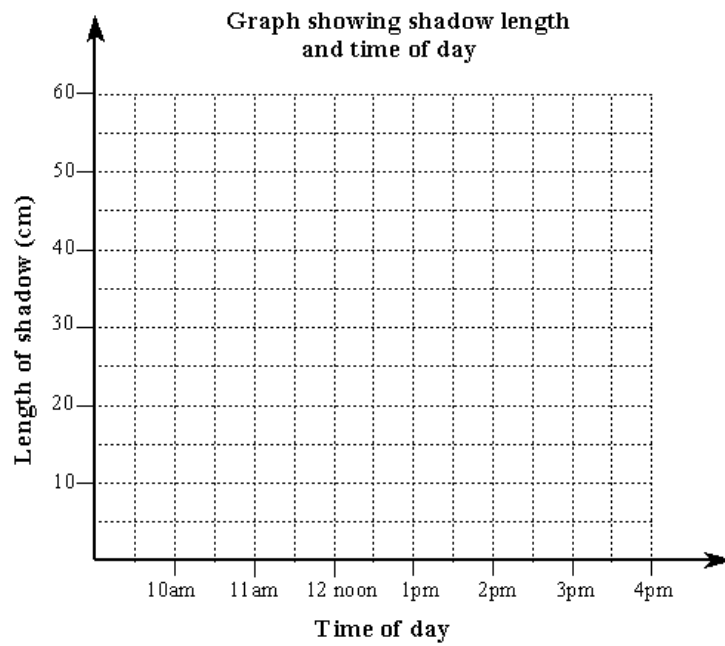
February shadows

This task is about making and reading a graph.

One sunny day in February a group of students measured the length of the shadow made by a stick at different times during the day. Here are their results:

Time of day	Length of shadow, in centimetres (cm)
10 a.m.	53
11 a.m.	37
1 p.m.	20
1.30 p.m.	18
2 p.m.	20
3 p.m.	26
4 p.m.	37

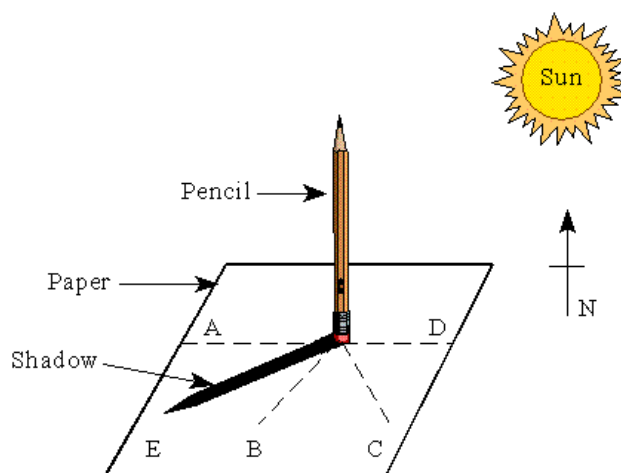
a) Draw a line graph to show these results.



b) From the graph you have drawn answer the following questions.

- i) How long would the shadow length be at 12 noon? _____ cm
- ii) What do you notice about the time of day and the length of the shadow?

c) What causes the shadow length change during the day?



d) Some students made a simple sundial using a pencil and a sheet of paper as shown above. Their sundial made the shadow E at 9:00 a.m.

Which dotted line shows where the shadow will fall at 11:00 a.m.?

- (A) A
- (B) B
- (C) C
- (D) D