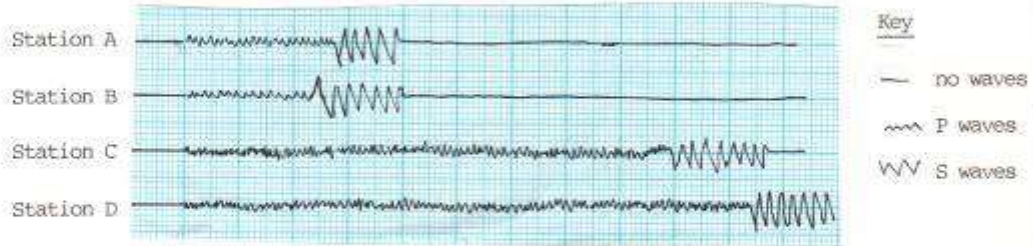


EARTHQUAKES

E.S 7

The seismographs received from the same earthquake were obtained from 4 independent stations in Britain. You are required to plot accurately the epicentre.

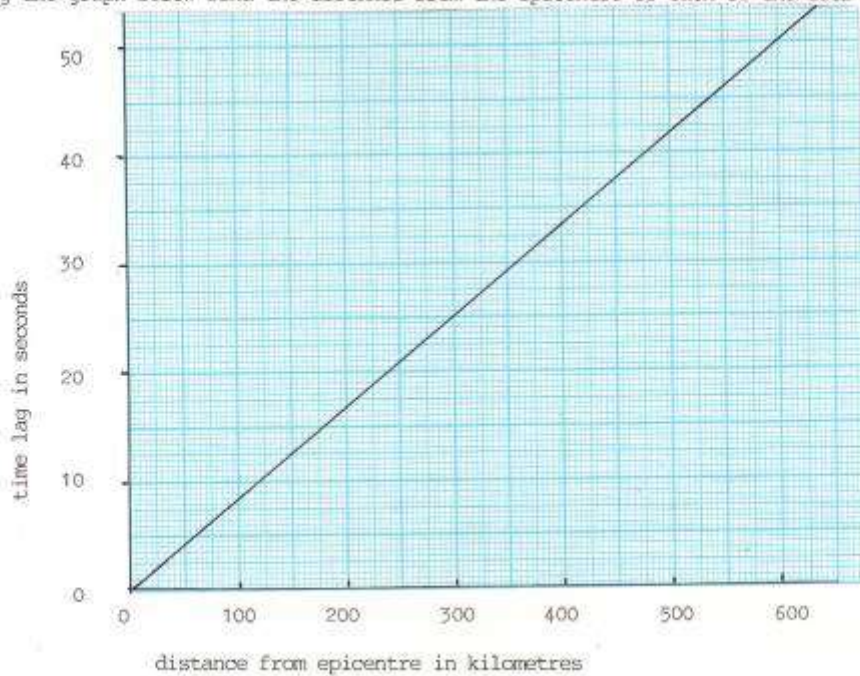
- a) Firstly, find the time lag between arrival of P and arrival of S waves at each of the stations from the seismographs.



Scale 1 cm = 5 seconds

Write your answers on sheet 2

- b) Using the graph below find the distance from the epicentre of each of the four stations



Write your answers on sheet 2

EARTHQUAKES PRACTICAL sheet 2

Answers to a and b

Station A      Station B      Station C      Station D

Time lag in seconds

Distance in kilometres

c) Locate the epicentre of the earthquake by drawing an arc for each station using the station as the centre and the epicentral distance as the radius.

Station A    Edinburgh  
Station B    Aberdeen  
Station C    Aberystwyth  
Station D    Cambridge



State the geographical location where the epicentre occurred and give a reason why you think it occurred at this location