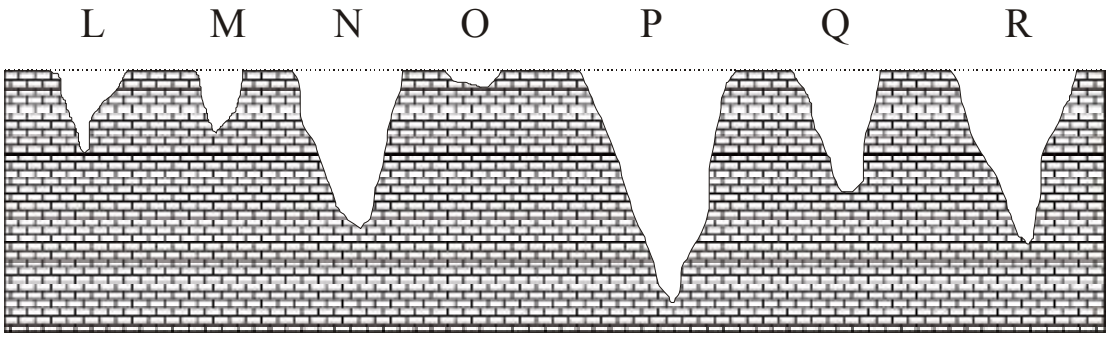
Drip Drip Drip

A block of limestone was placed under a container of dilute carbonic acid. The acid was allowed to drip onto the limestone in seven locations (O-P). The amount of time that the acid was allowed to drip at each location varied, so that the pit that was formed from the limestone dissolving away was a different depth.



Measure the maximum depth of each of the pits in millimeters, and complete the table of results below.

Location	Number of days of dripping	Depth of pit (mm)
L	54	
M	41	
N	108	
O	14	
P	162	
Q	81	
R	122	

On the graph paper, plot the depth of the pit (y axis) against the number of days (x Axis). Extend your graph up to 150 days.

Use the information on your graph to estimate the number of days it would take a drip to dissolve a pit through he entire limestone block. Number of days : _____

How long does it take for a drip to dissolve through 1 cm (10mm) of limestone? _____

Lechuguilla Cave in New Mexico is the deepest limestone cave in the USA. How long would a drip of this acid take to dissolve to an equivalent dept of 489m _____

What could you change in this experiment to increase the rate at which the limestone is dissolved?

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