

A student set up an experiment to investigate the relationship between the temperature of an acid and the rate of carbon dioxide production when reacted with a base. In each trial the student timed how long in seconds it took to produce 100 mL of carbon dioxide in a gas syringe. The results are shown below.

Temperature of acid (°C)	Time taken to produce 100 mL of carbon dioxide (s)
30	91
40	65
50	64
60	21

8. Which of the following are control variables in this investigation?

- (i) volume of carbon dioxide produced
- (ii) temperature of the acid
- (iii) volume of the acid
- (iv) amount of base used
- (v) concentration of the acid

- (a) i, iii and v
- (b) i, ii and v
- (c) ii, iii and iv
- (d) iii, iv and v