

3 (a) Complete the sentences about the control of blood glucose concentration.

Blood glucose concentration increases after a person eats a meal containing carbohydrates.

This causes the to release insulin. Insulin causes the to remove glucose from the blood and convert it into

The control of blood glucose concentration is an example of [4]

(b) Outline the treatment of type 1 diabetes.

.....

 [2]

(c) A scientist investigated the effect of an injection of glucose solution on blood glucose concentration in healthy people. The injection was given at 0 minutes.

Fig. 3.1 shows the results.

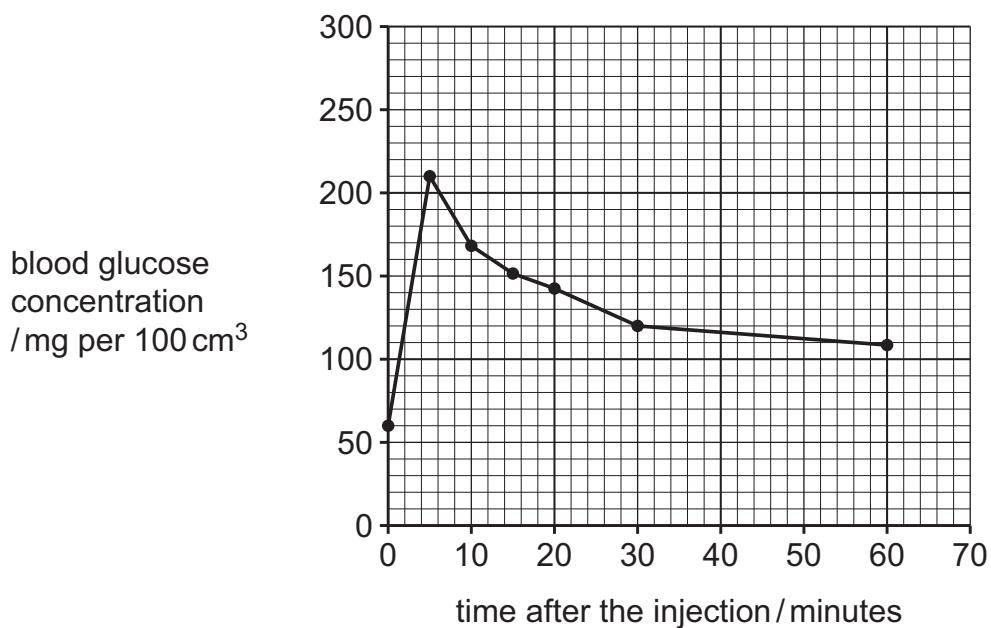


Fig. 3.1

Calculate the percentage change in the blood glucose concentration from 5 minutes after the injection to 30 minutes after the injection.

Give your answer to **two** significant figures.

Space for working.

..... % [3]

(d) Adrenaline also affects blood glucose concentration.

Suggest how this is an advantage for the “fight or flight” response.

.....

 [3]