SECTION A

Answer ALL the questions in this section.

For questions 1–10, in Section A, select one answer from A to D and put a cross in the box ☒. If you change your mind, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 A student used a detector and counter to measure the background radiation count for five minutes. He used this value to calculate the background count rate.

Which of the following would increase the accuracy of the student's value for the background count rate?

☒ **A** Decrease the counting time to 1 minute.

☒ **B** Increase the counting time to 10 minutes.

☒ **C** Repeat the count with a different detector and calculate a mean value.

☒ **D** Repeat the count in a different location and calculate a mean value.

(Total for Question 1 = 1 mark)