

- 3 (a) Ten students carry out an investigation to determine the speed at which a nerve impulse travels.
- they form a circle holding hands
 - the first student starts a timer with his left hand
 - using his right hand, he squeezes the left hand of the second student
 - this continues until student number 10 has his left hand squeezed by student number 9
 - student number 10 stops the timer with his right hand
 - the distance the nerve impulse travels in each student is measured and the results recorded in the table.

Student number	1	2	3	4	5	6	7	8	9	10
Distance travelled by nerve impulse in each student in cm	198	220	175	189	207	190	167	168	176	210

- (i) Suggest how the distance travelled by the nerve impulse in each student is measured.

(3)

- (ii) Calculate the total distance travelled by the nerve impulse through all ten students.

(1)

distance travelled = cm

