

- (c) The egg cells in the female octopus produce peptides that attract the sperm down the siphon and activate them.

An investigation was carried out to determine the effect of the concentration of one of these peptides on sperm movement.

The table below shows the results of this investigation.

Concentration of peptide / a.u.	Percentage of sperm moving towards the peptide (%)
control	5.4
10	13.0
10^2	10.2
10^3	6.6

- (i) Describe a suitable control for this investigation.

(1)

- (ii) Put a cross in the box next to the range of concentrations of peptide that would need to be used to find the optimum concentration for movement of sperm.

(1)

- A** 0 to 10
- B** 0 to 10^2
- C** 10 to 10^2
- D** 10 to 10^3