

Paper Reference(s) 9BN0/02
Pearson Edexcel Level 3 GCE

Biology A (Salters Nuffield)
Advanced
PAPER 2: Energy, Exercise and
Co-ordination

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

**THIS DIAGRAM BOOKLET MUST BE
RETURNED WITH THE QUESTION PAPER
AT THE END OF THE EXAMINATION.**

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Question 2(a)

Diagram A

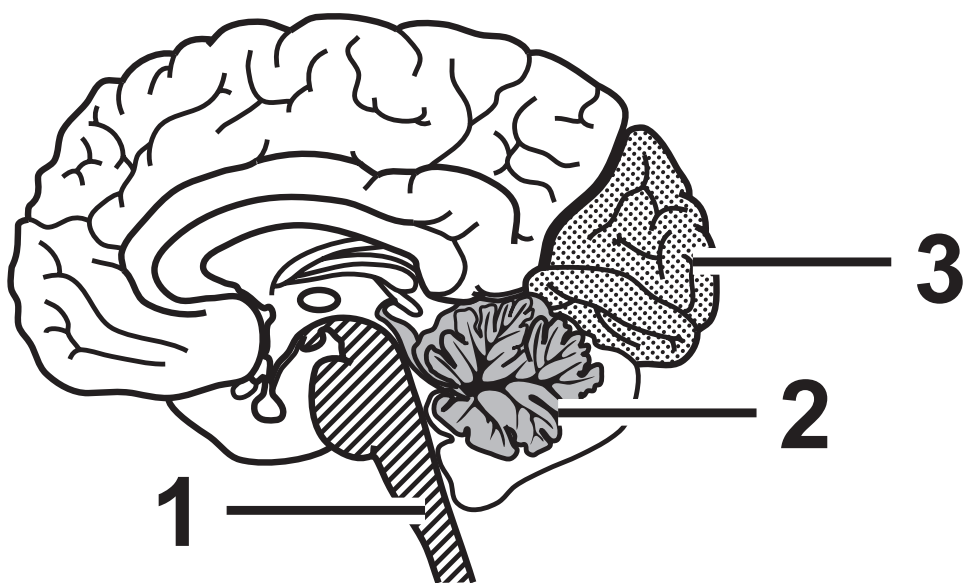


Diagram B

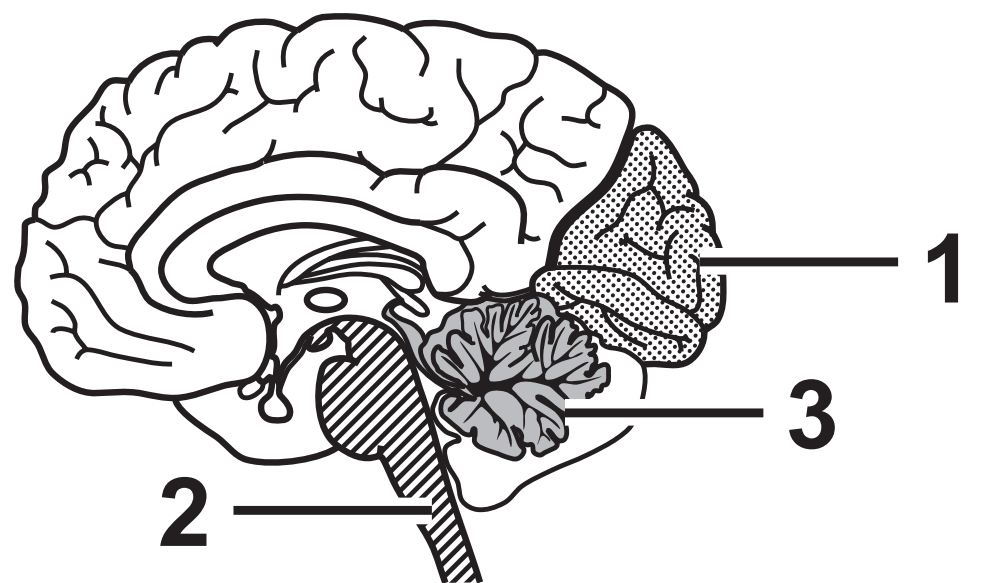


Diagram C

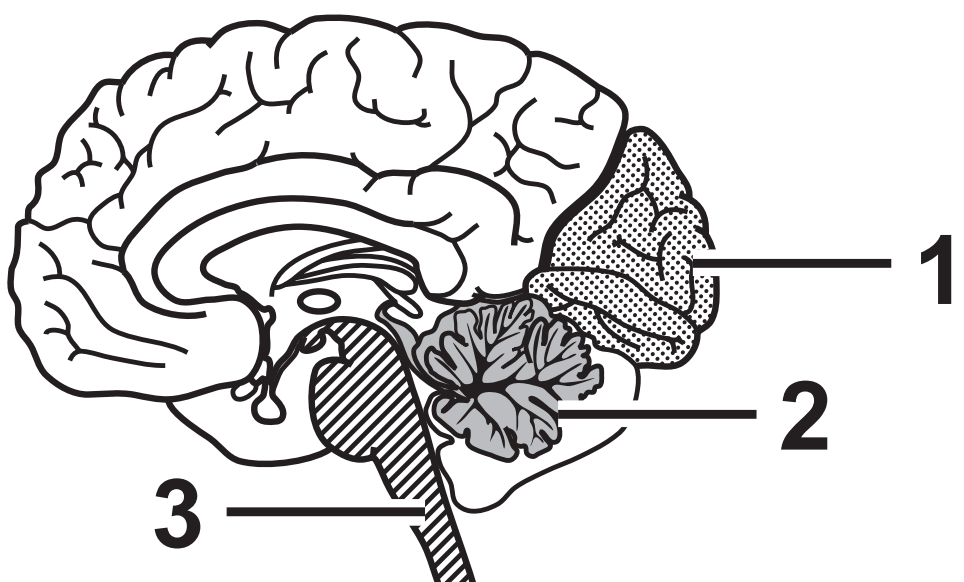
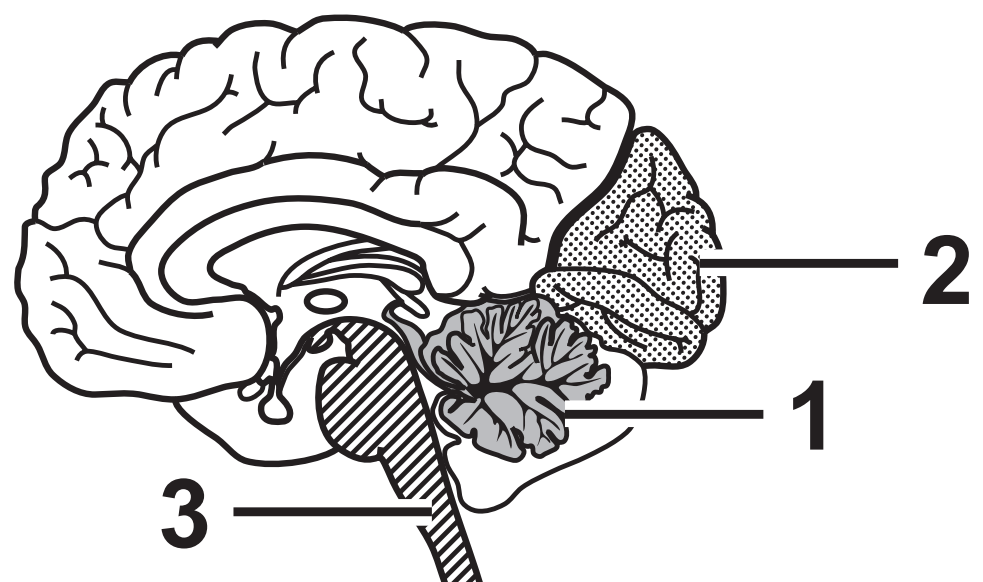


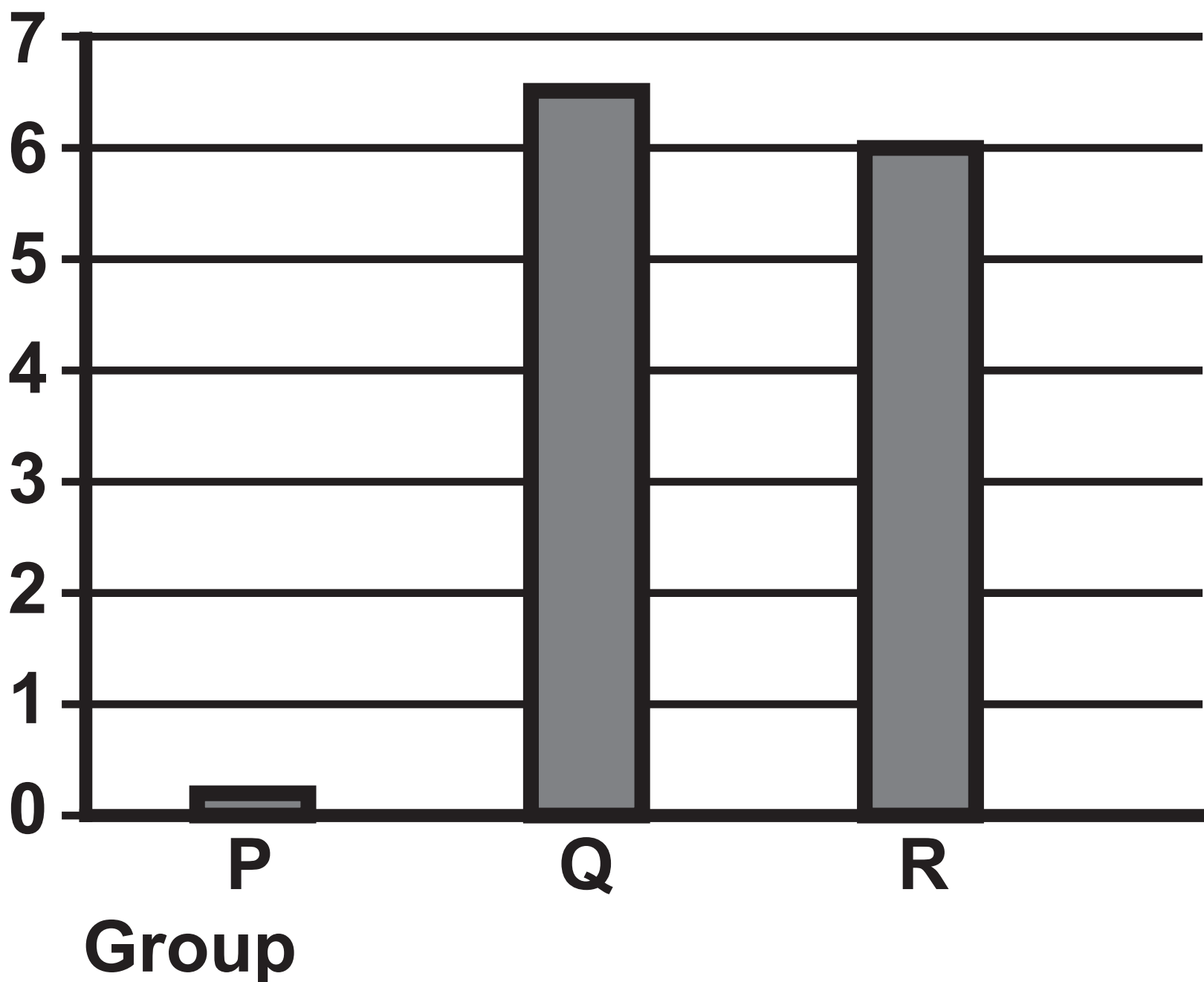
Diagram D



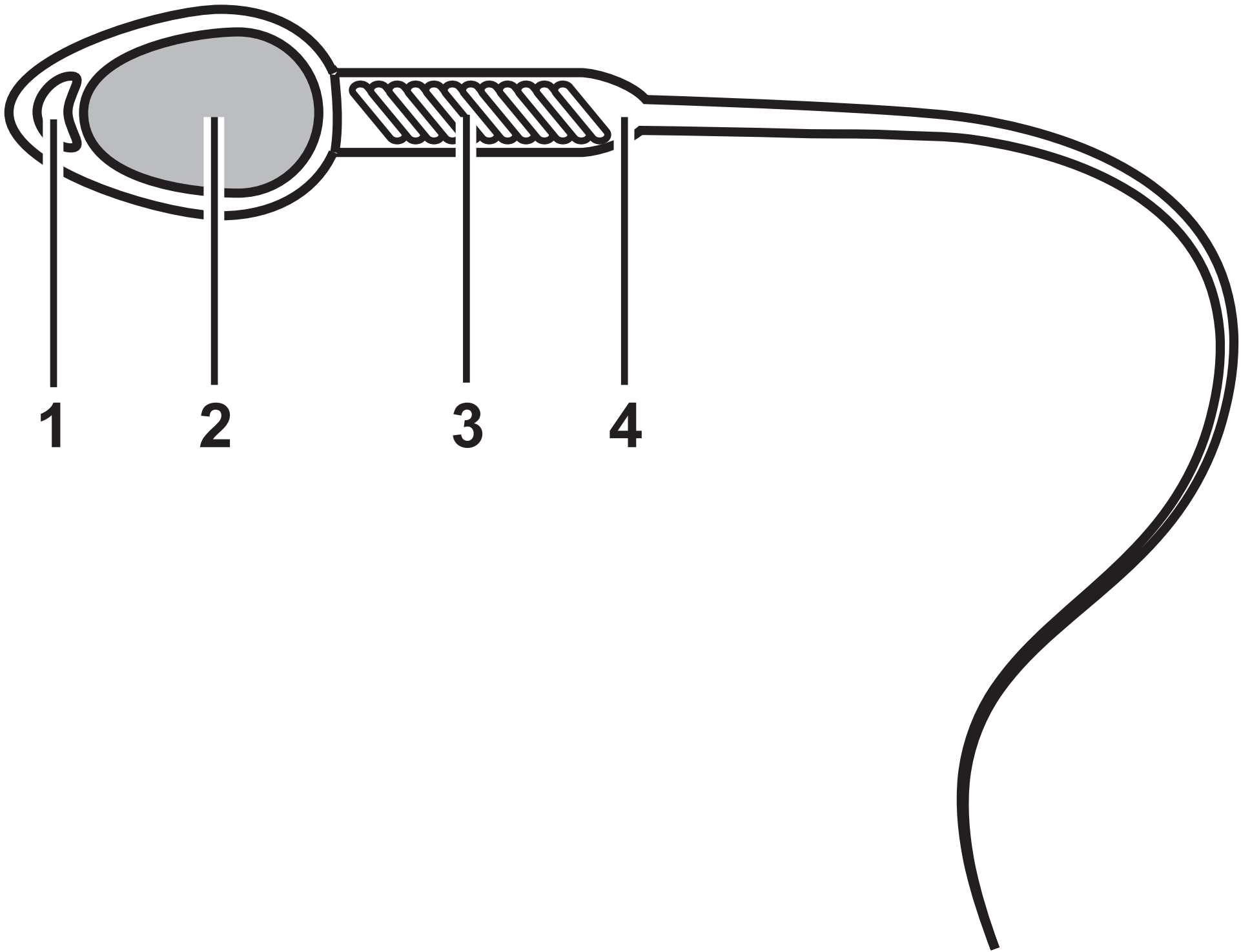
Question 3(a)

Group	Treatment
P	Genetically modified (GM) only
Q	Genetically modified and supplied with drug K
R	Supplied with drug K only

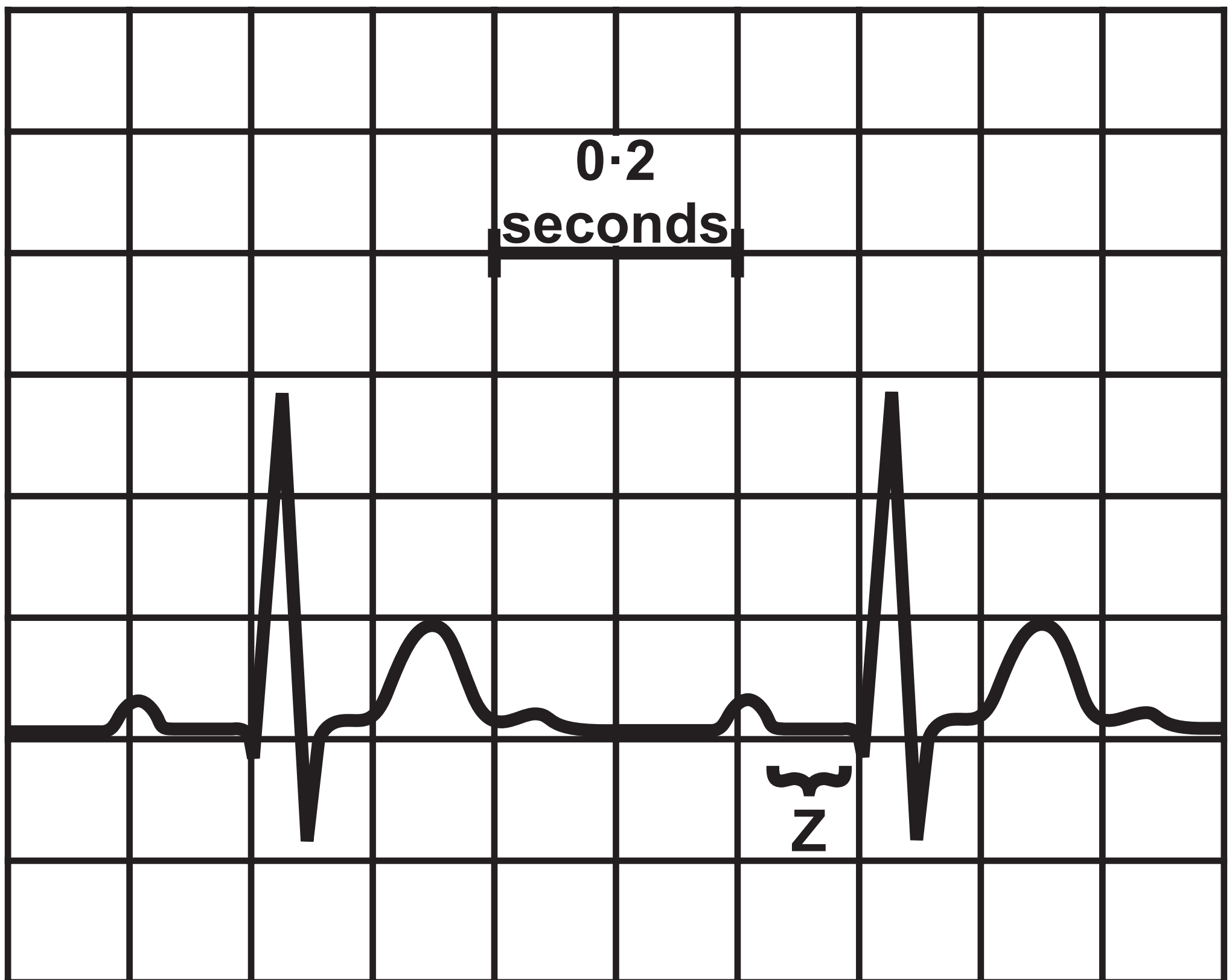
Mean number of
offspring born per
month per female



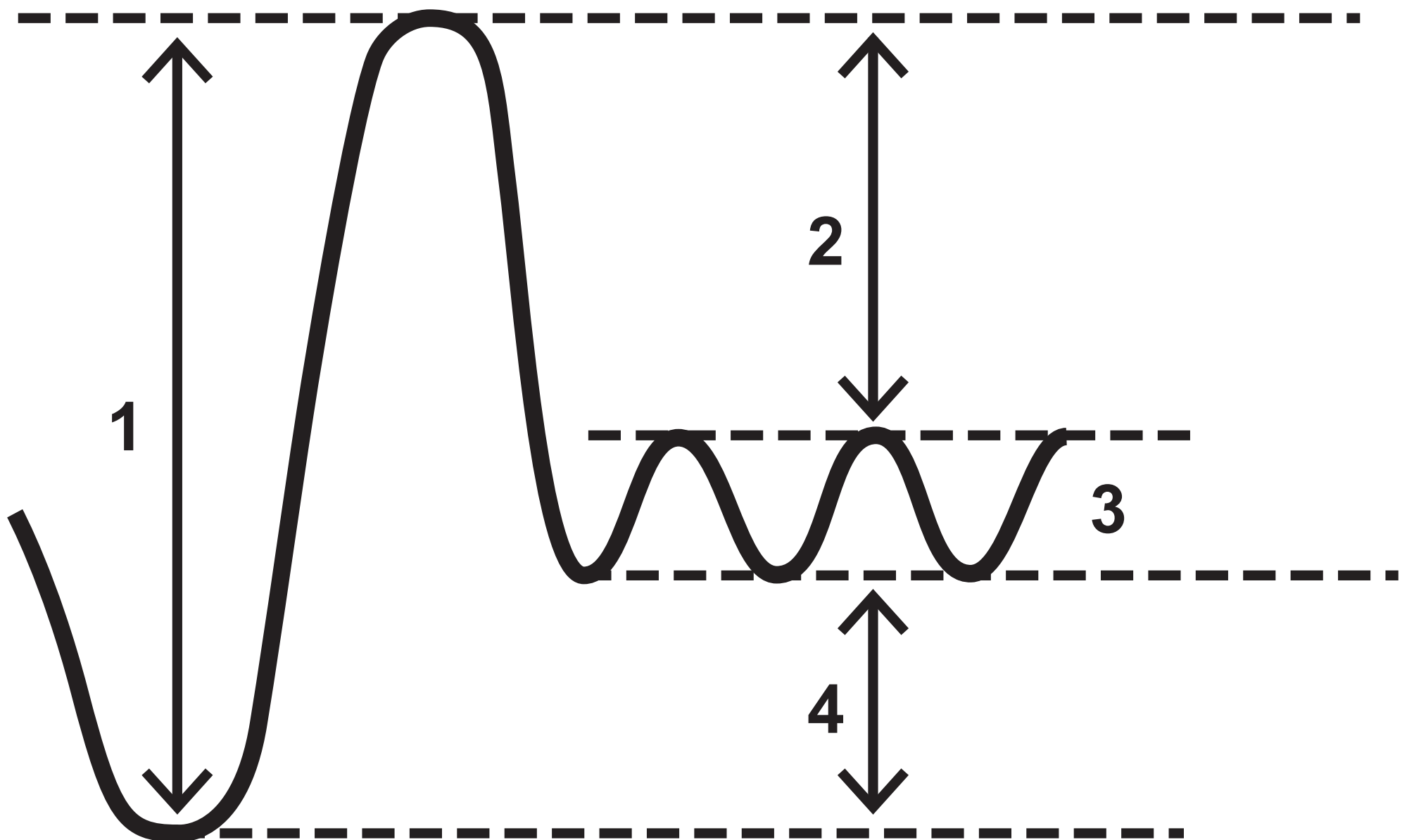
Question 3(c)



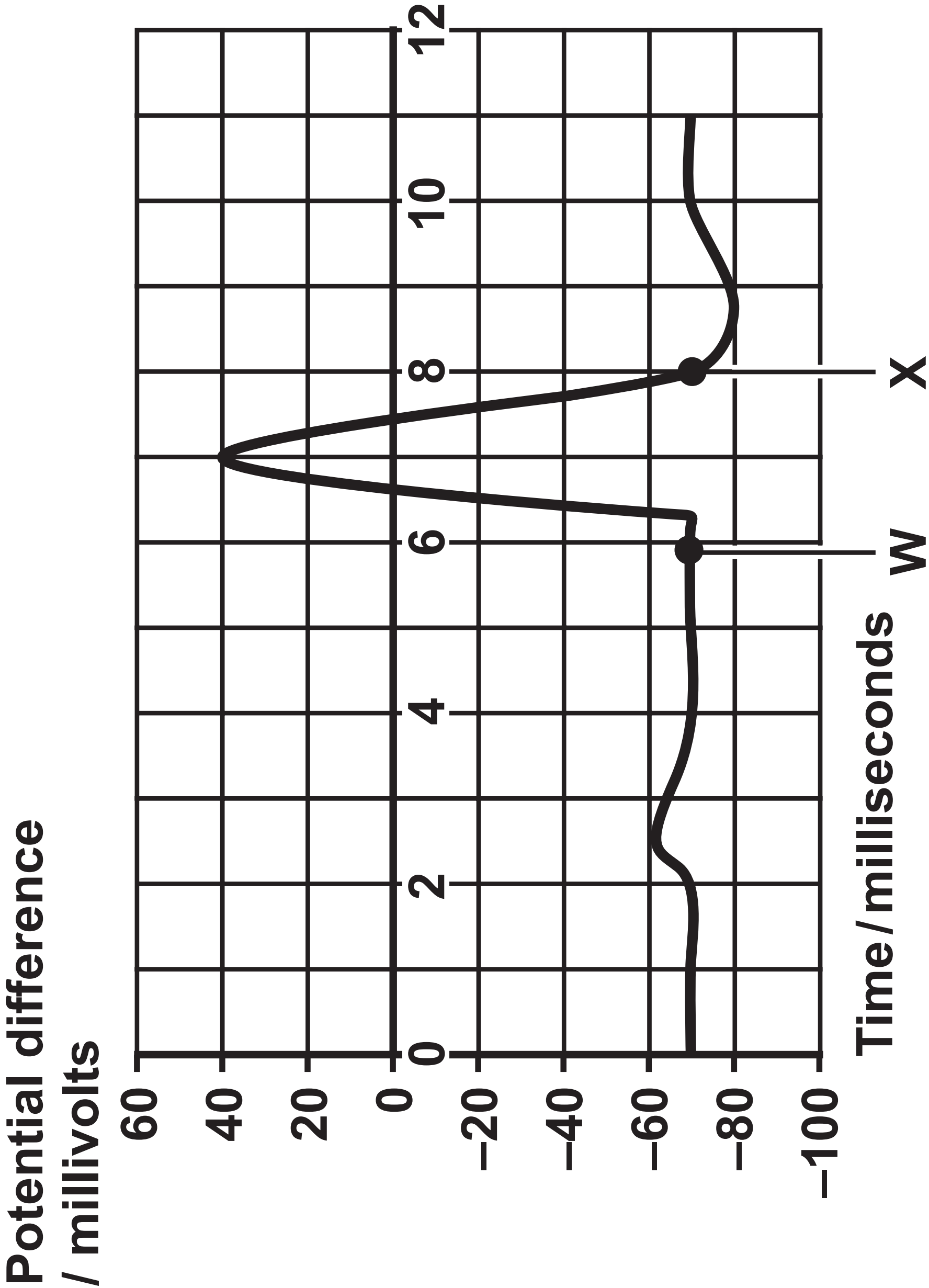
Question 4(a)



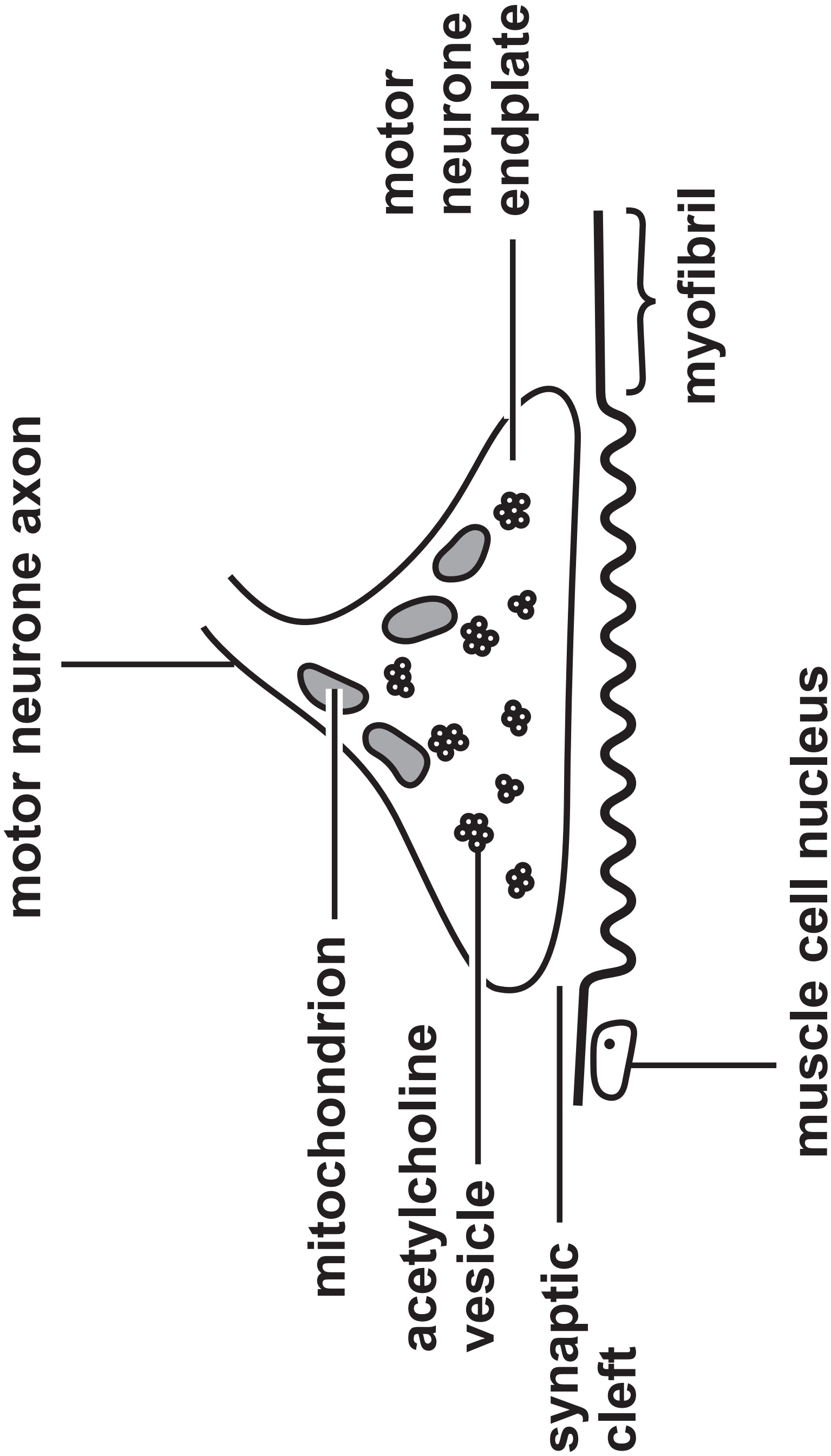
Question 5(a)



Question 6(a)



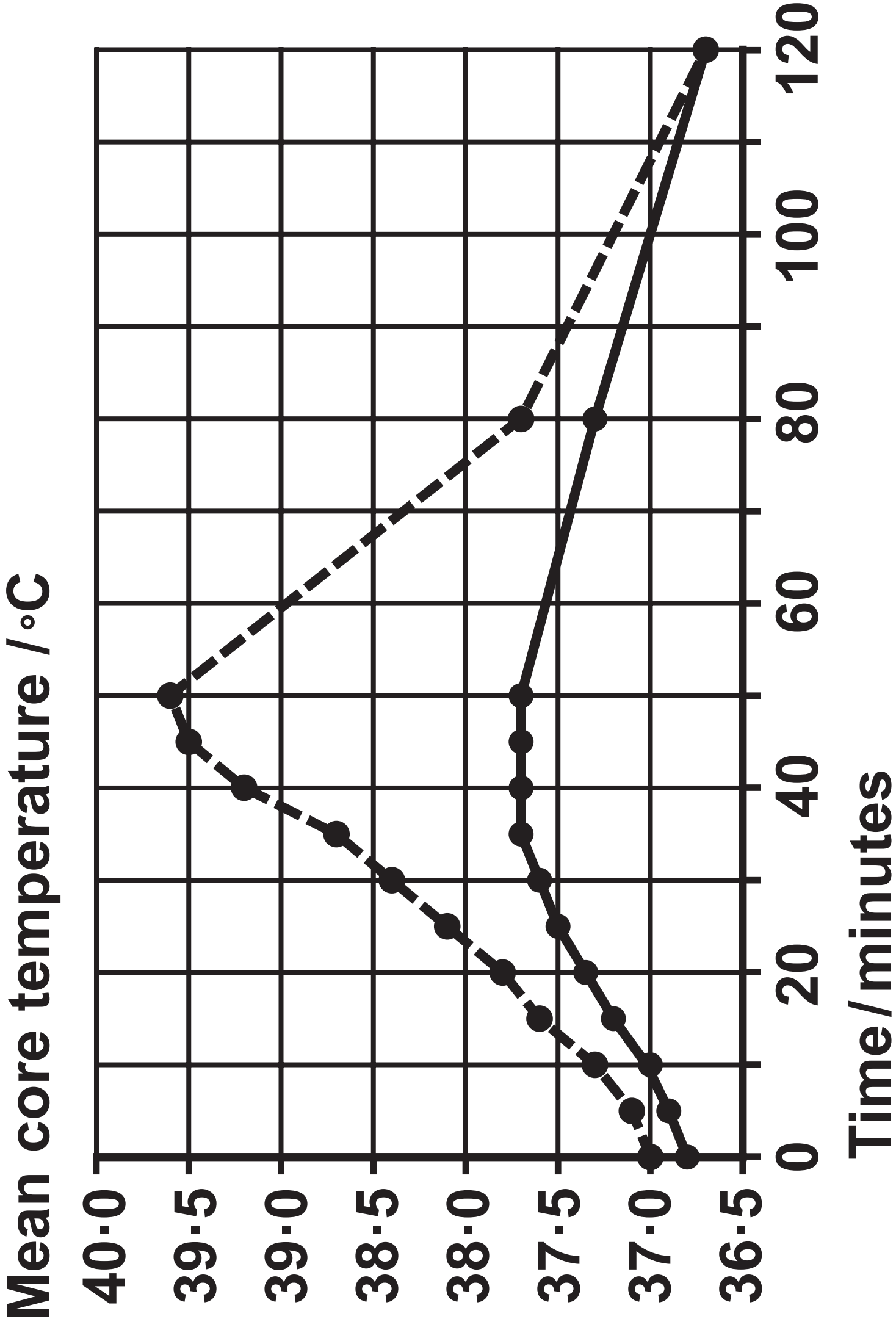
Question 6(b)



Question 7(a)

KEY

- warm temperature and high humidity
- cool temperature and low humidity



Question 7(b)

Measurements	During exercise	Immediately after exercise
Mean concentration of neutrophils in blood / 10^6 cells cm^{-3}	3.57	3.42
Mean activity of neutrophils / a.u.	28.4	22.0

Question 8(b)(ii)

Organ	Percentage of cell membranes (%)	
	Golgi apparatus	rER
Liver	7	35
Pancreas	10	60

Question 9(a)(iii)

Offspring with a yellow coat	Offspring with a non-yellow coat
1064	535

15

Question 10(b)

mean mass of an adult	80 kg
mean percentage of body mass that is bone	4%
mean mass of calcium ions per adult	1000 g
mean percentage of calcium ions present in soft tissue	1%