

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

Biology A (Salters Nuffield)

Advanced

PAPER 2: Energy, Exercise and Co-ordination

Diagram Booklet

INSTRUCTIONS

**THIS DIAGRAM BOOKLET MUST NOT BE RETURNED WITH
THE QUESTION PAPER AT THE END OF THE EXAMINATION.**

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Question 2(a)

Diagram A

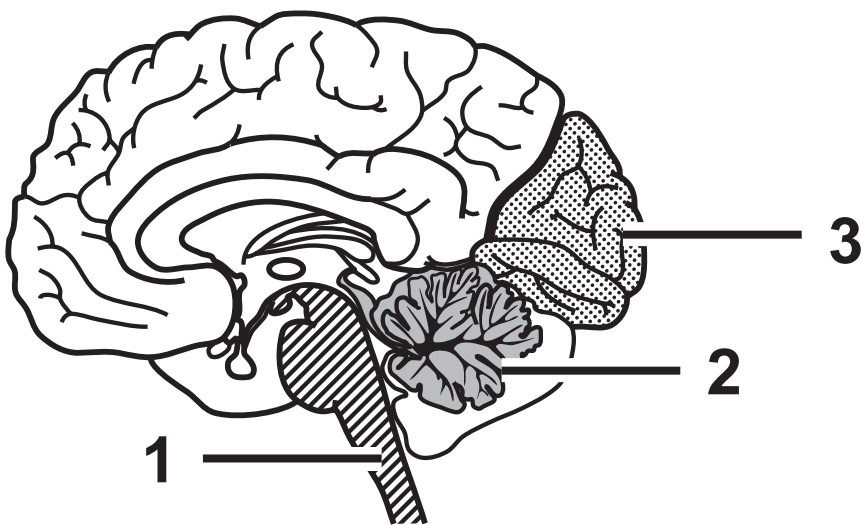


Diagram B

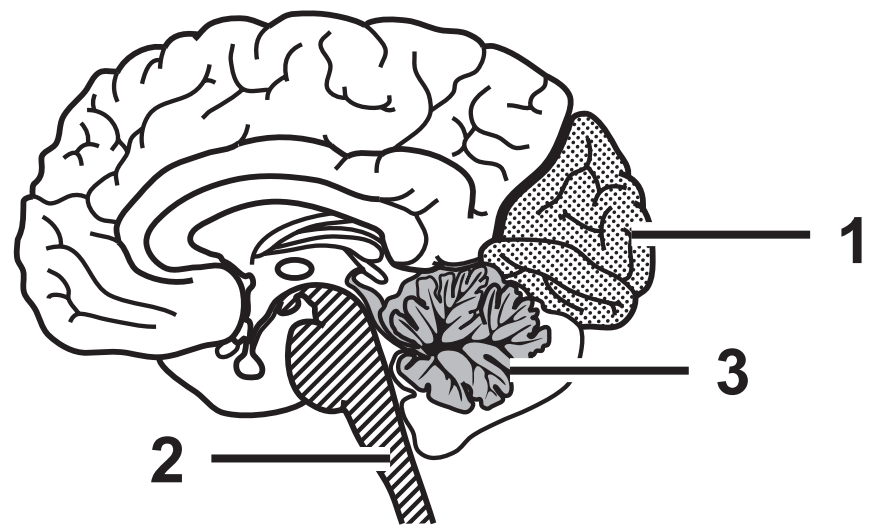


Diagram C

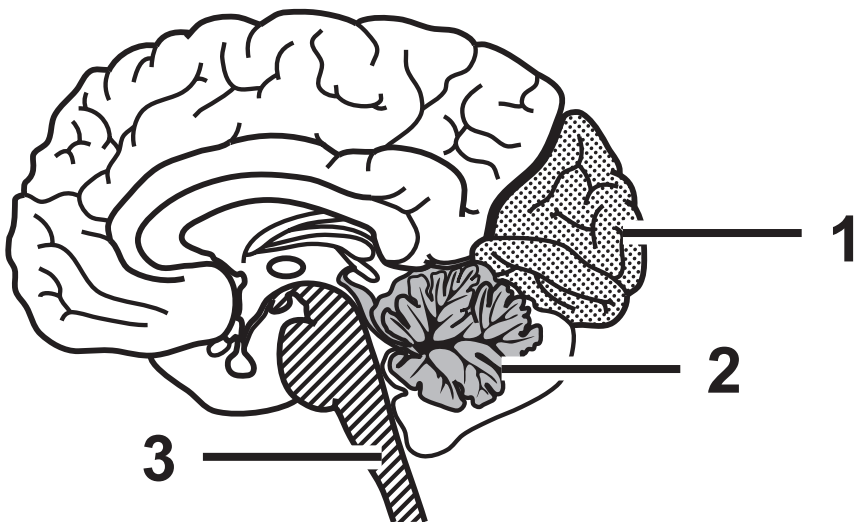
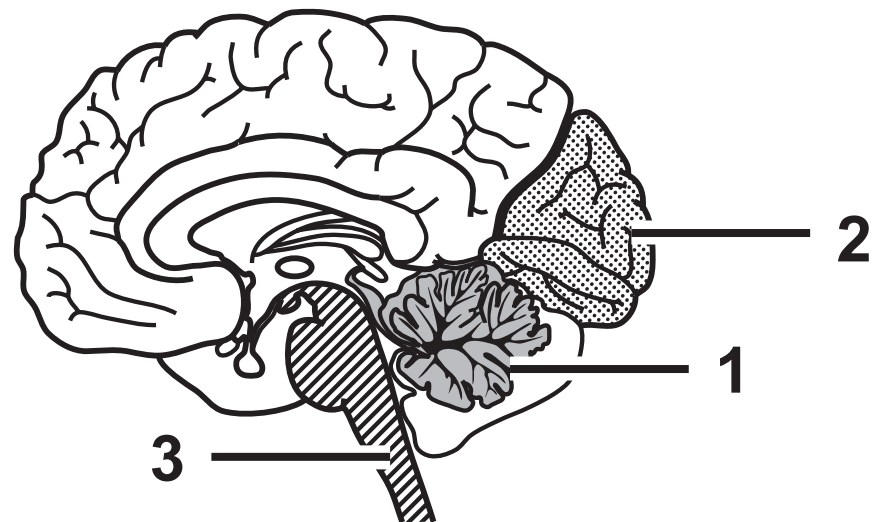


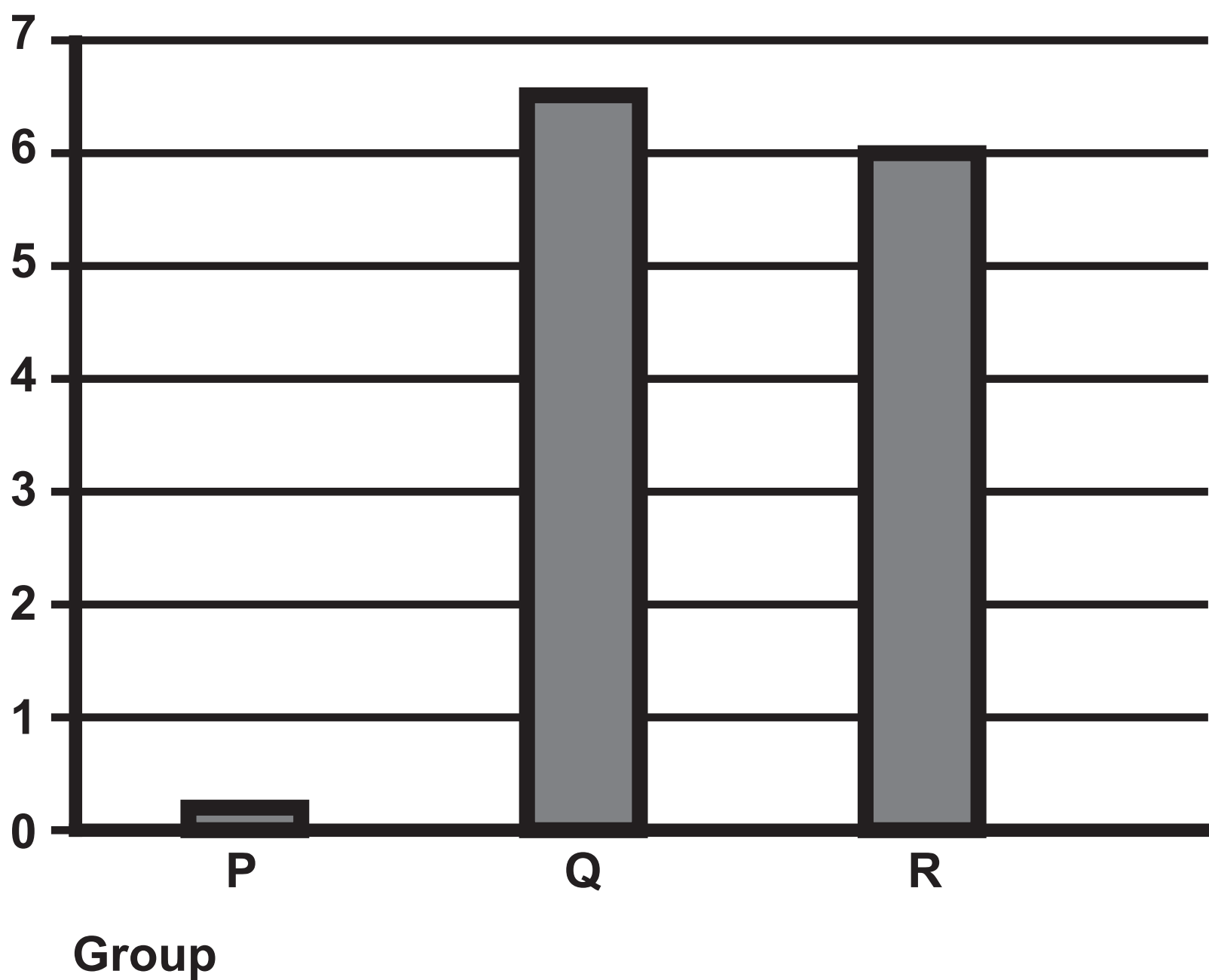
Diagram D



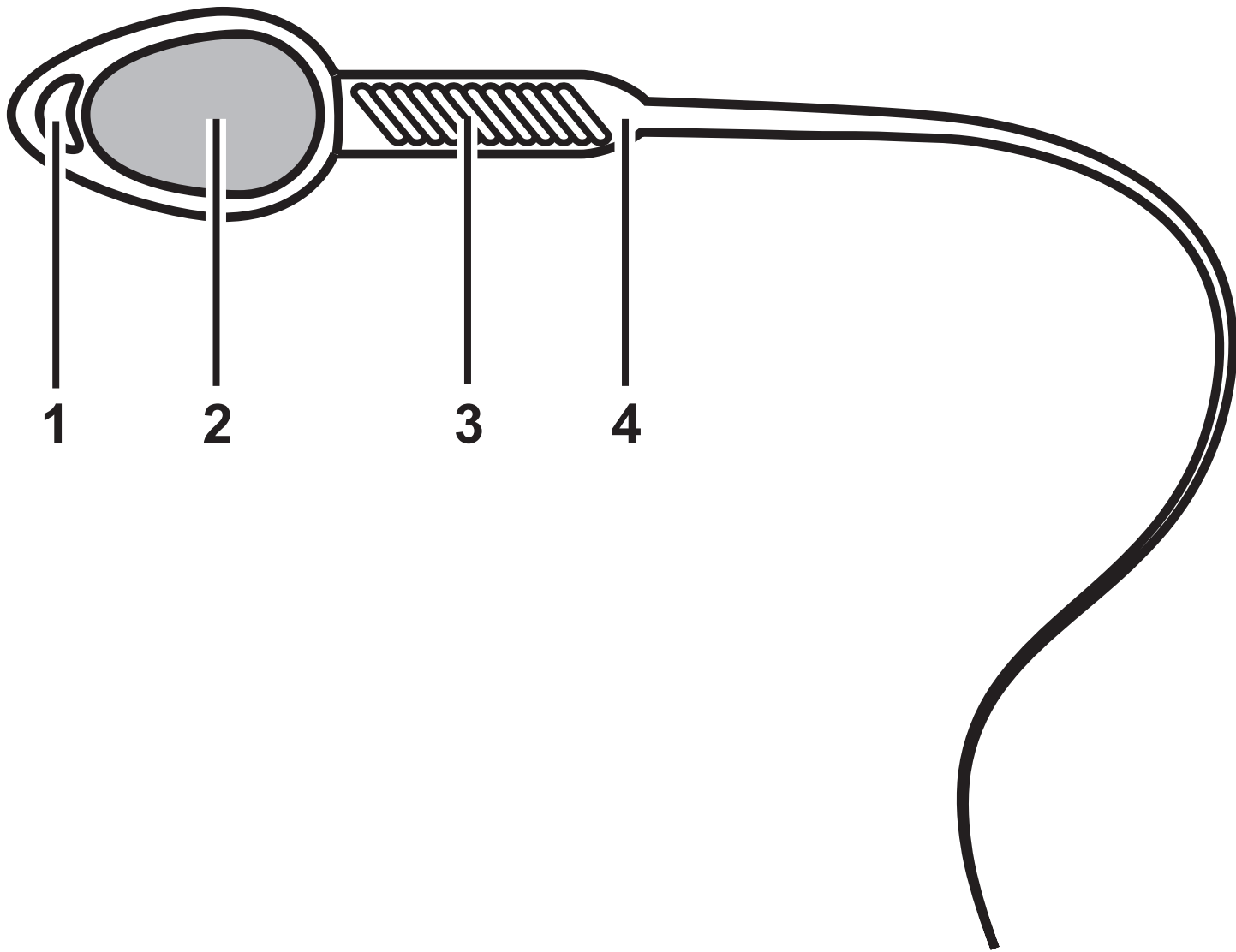
Question 3(a)

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

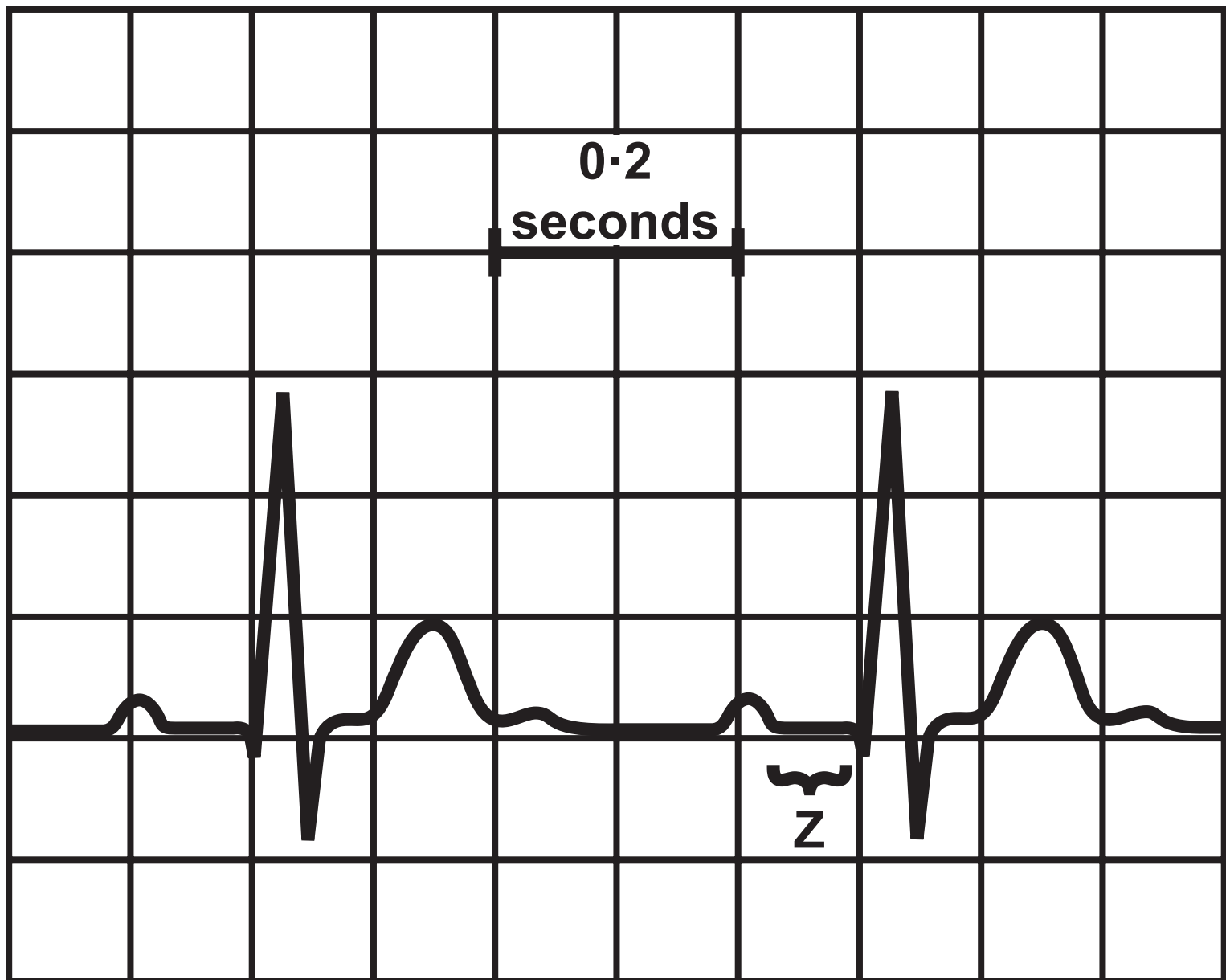
Mean number of
offspring born per
month per female



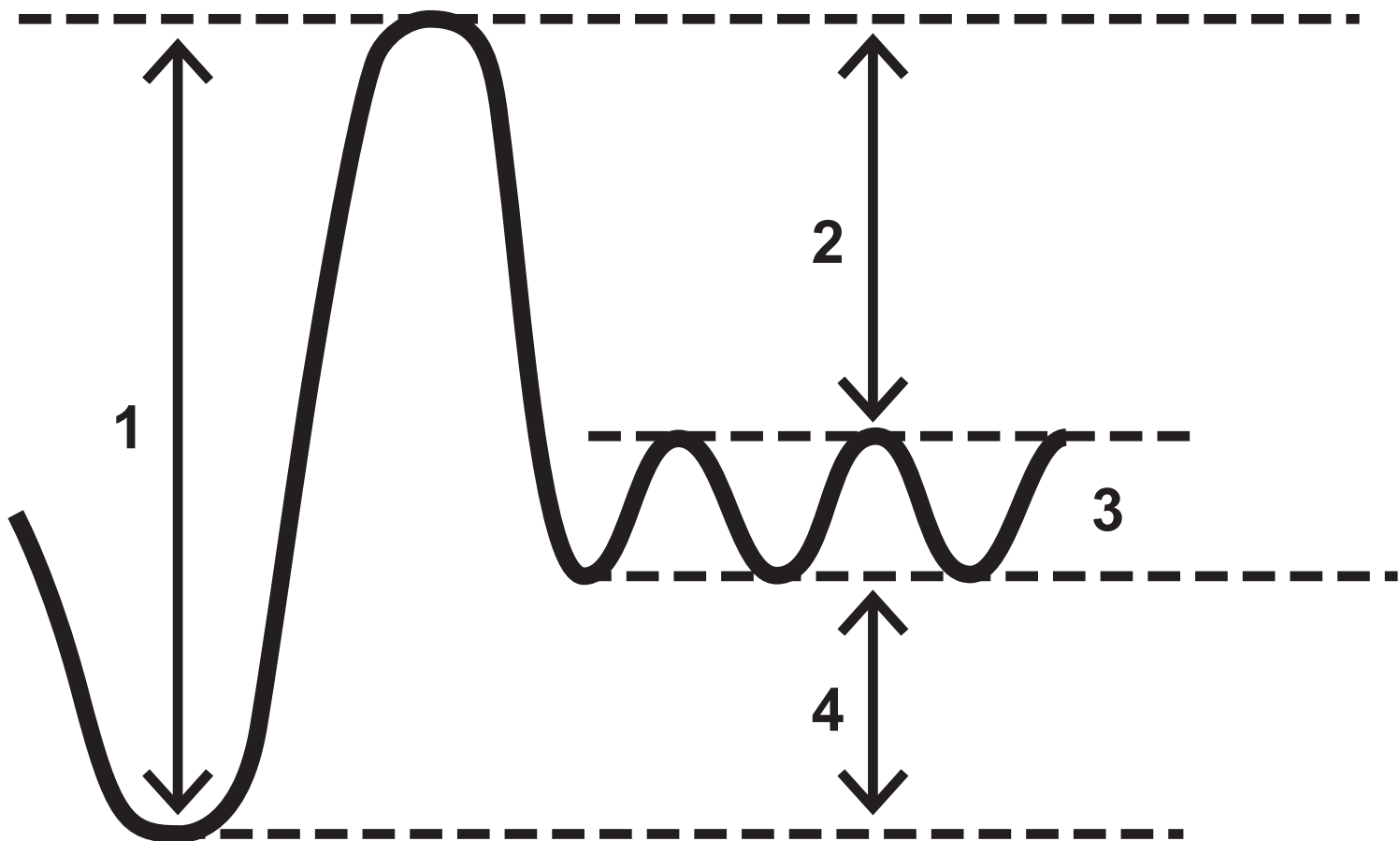
Question 3(c)



Question 4(a)

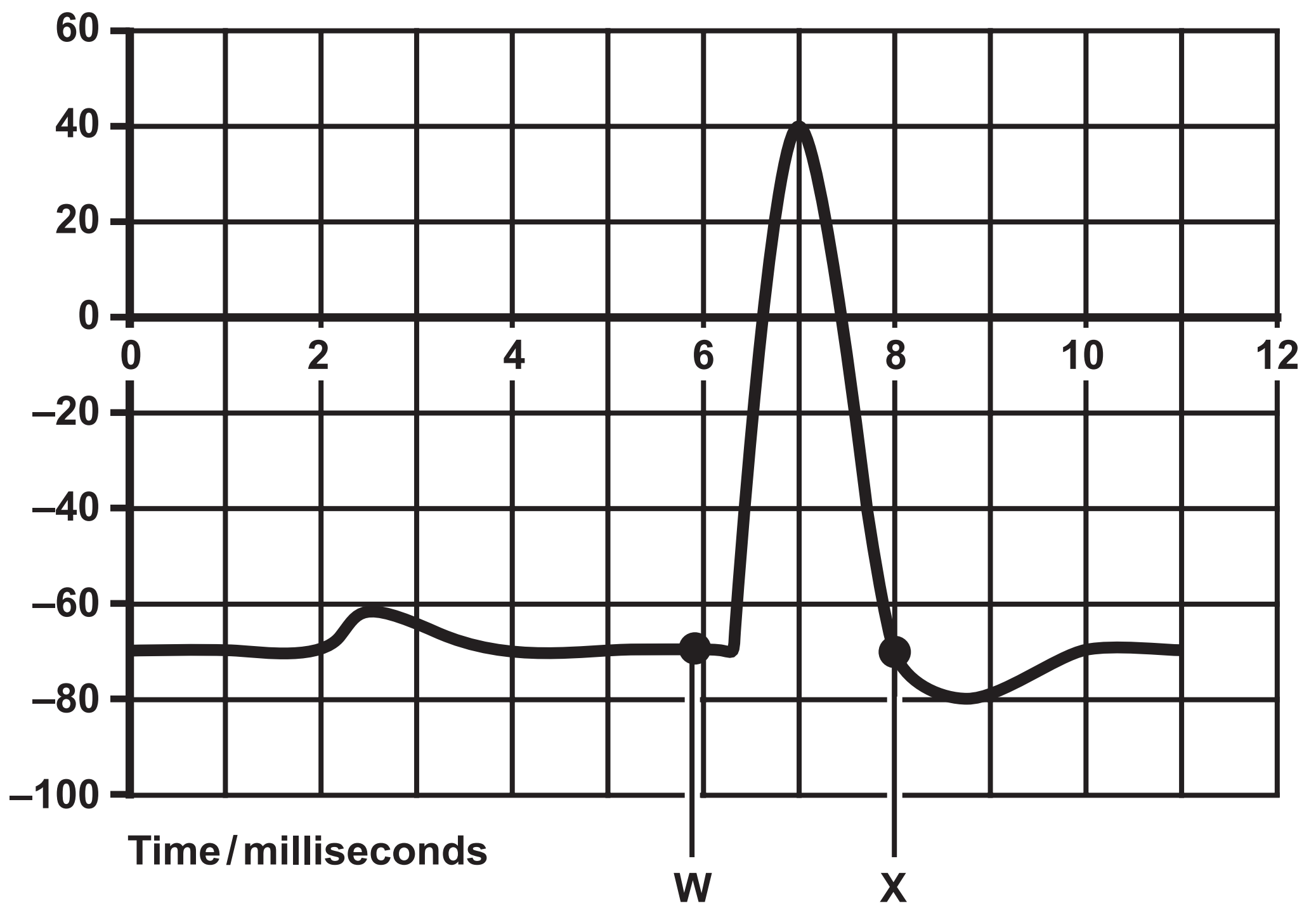


Question 5(a)

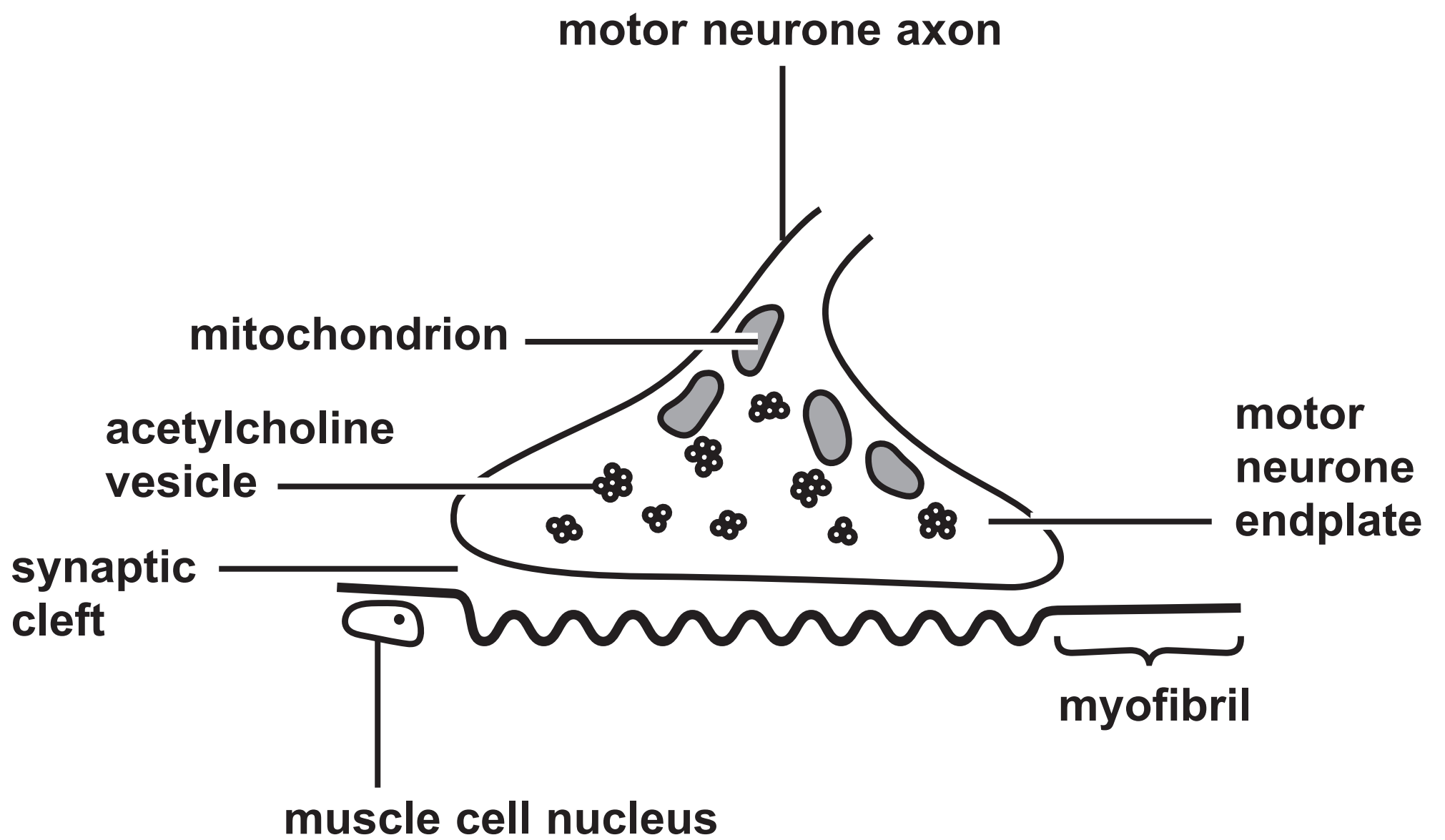


Question 6(a)

Potential
difference
/ millivolts



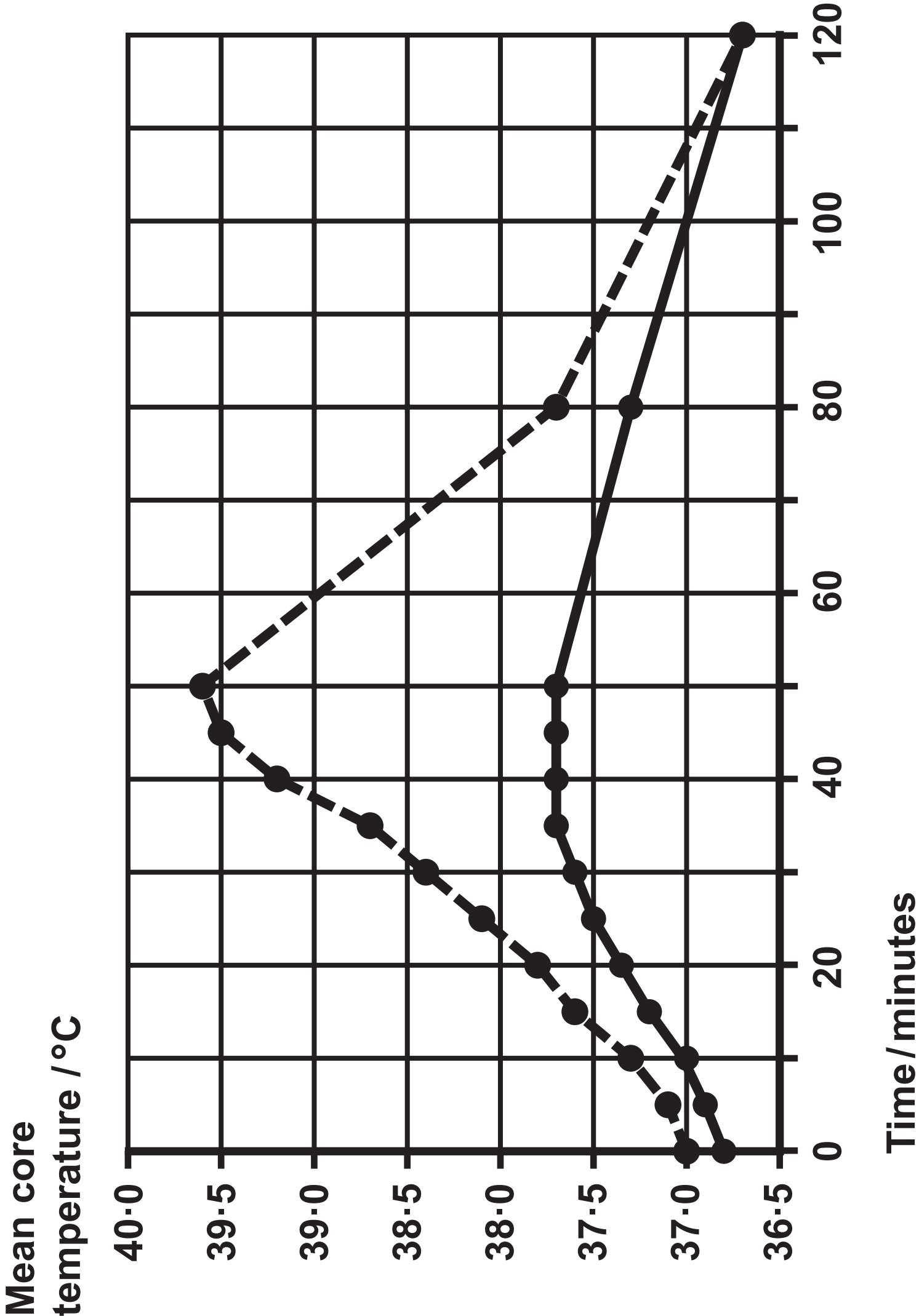
Question 6(b)



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

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%