

<b>Candidate Forename</b>		<b>Candidate Surname</b>	
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<b>Centre Number</b>						<b>Candidate Number</b>				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**B495/01**

**ENVIRONMENTAL  
AND LAND-BASED SCIENCE**

**Livestock Husbandry  
(Foundation Tier)**

**THURSDAY 4 JUNE 2009: Morning  
DURATION: 45 minutes**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the question paper**

**OCR SUPPLIED MATERIALS:**

**None**

**OTHER MATERIALS REQUIRED:**

**Electronic calculator**

**Pencil**

**Ruler (cm/mm)**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**
- **Answer ALL the questions.**
- **Write your answer to each question in the space provided, however additional paper may be used if necessary.**

## **INFORMATION FOR CANDIDATES**

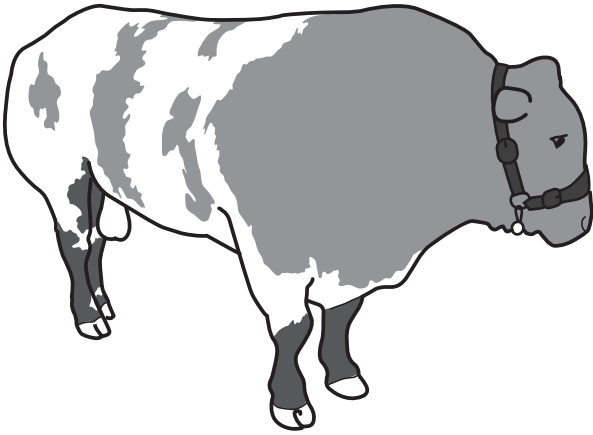
- **The number of marks is given in brackets [ ] at the end of each question or part question.**
- **The total number of marks for this paper is 36.**

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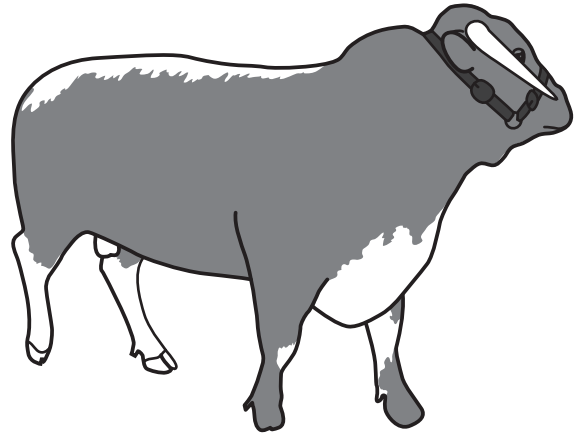
Answer ALL the questions.

1

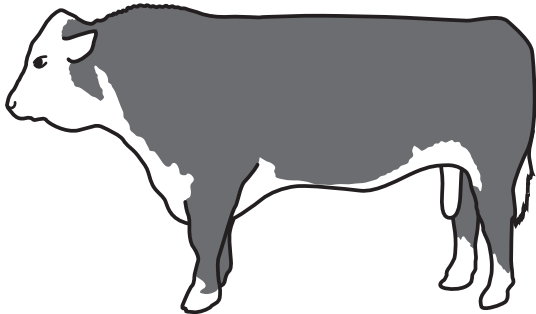
A



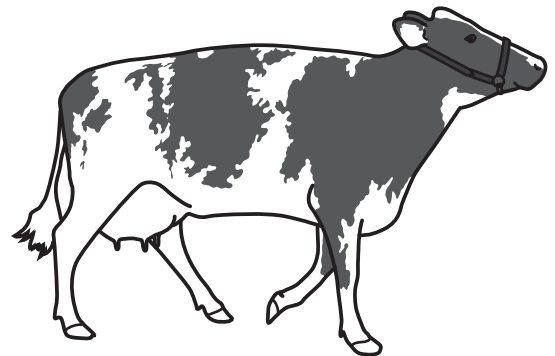
B



C



D



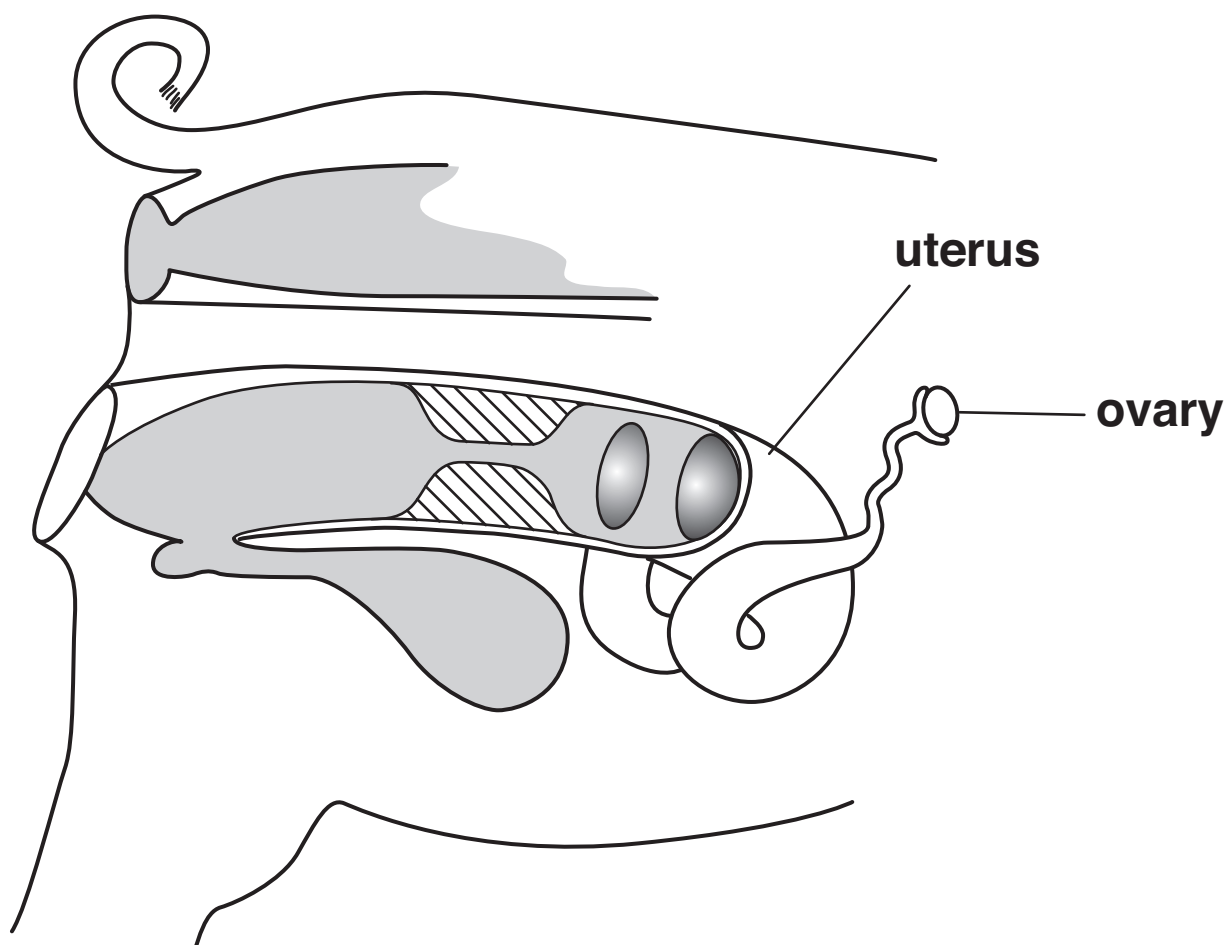
Which of the cattle shown in the photographs is a female?

Answer A, B, C or D \_\_\_\_\_ [1]

**2 Name one organ that is ONLY found in the MALE reproductive system of an animal you have studied.**

\_\_\_\_\_ [1]

**3 The diagram shows the reproductive system of a sow (female pig).**



**What is the job (function) of the following parts of the reproductive system?**

**ovary** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**uterus** \_\_\_\_\_

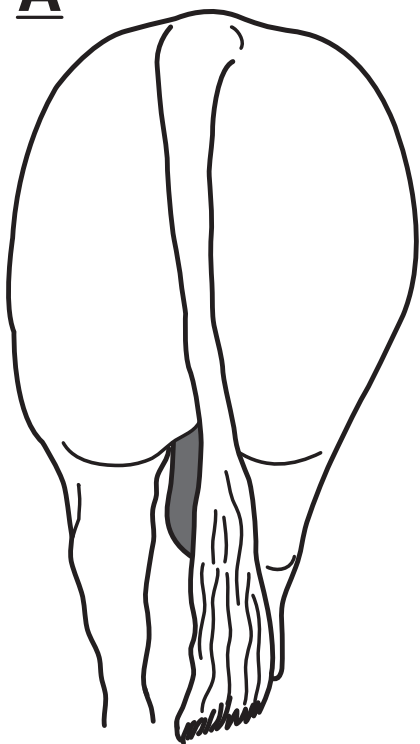
\_\_\_\_\_

\_\_\_\_\_

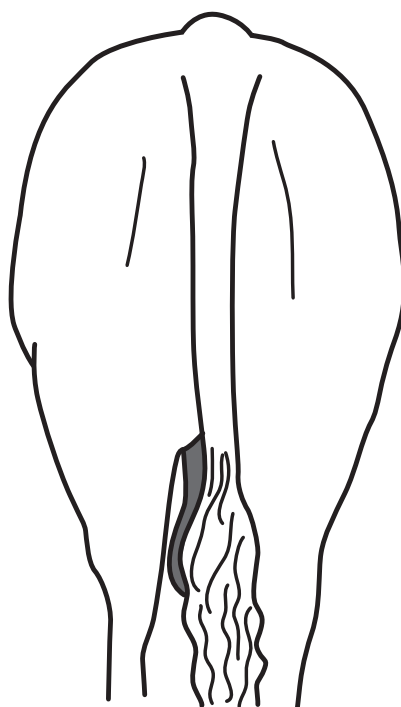
\_\_\_\_\_ [2]

4

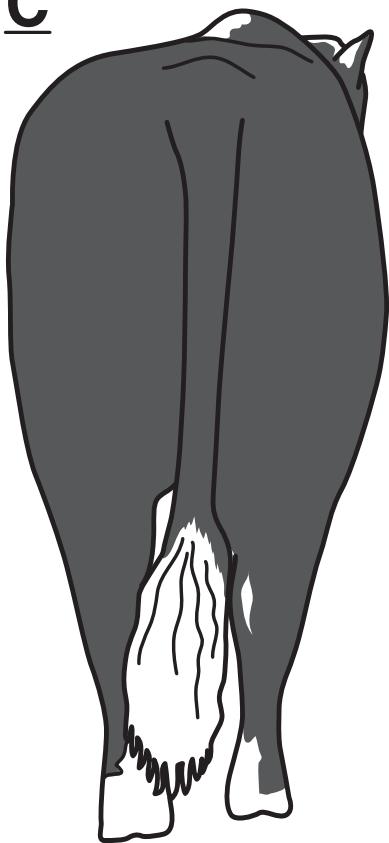
A



B



C



D

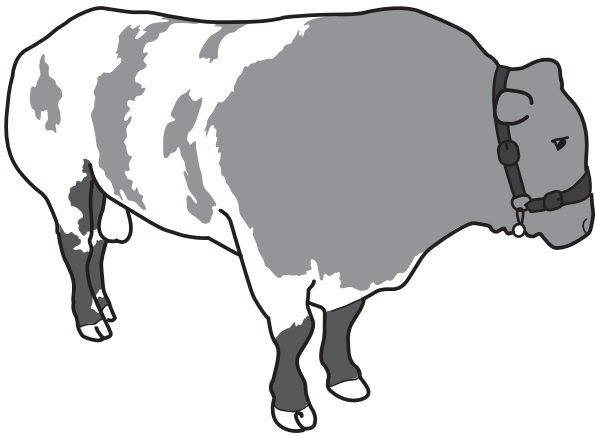




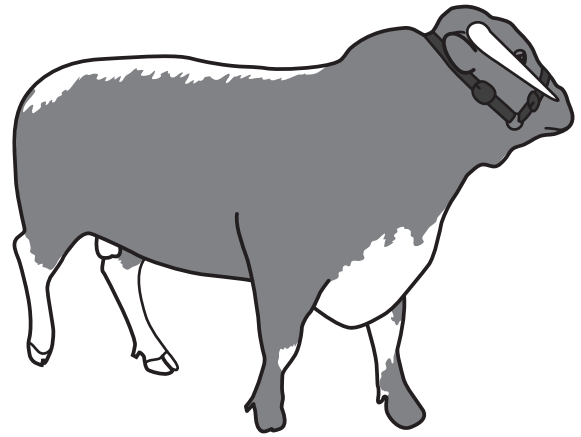
Which ONE of the animals in the photographs is a dairy breed?

Answer A, B, C or D \_\_\_\_\_ [1]

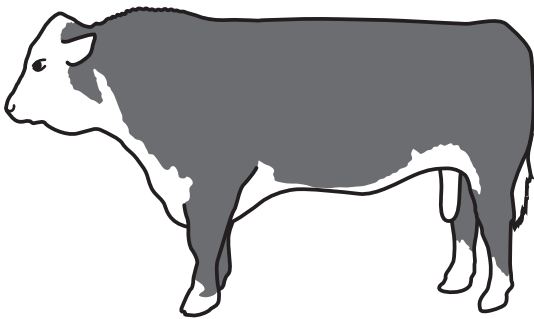
**5 BELGIAN BLUE**



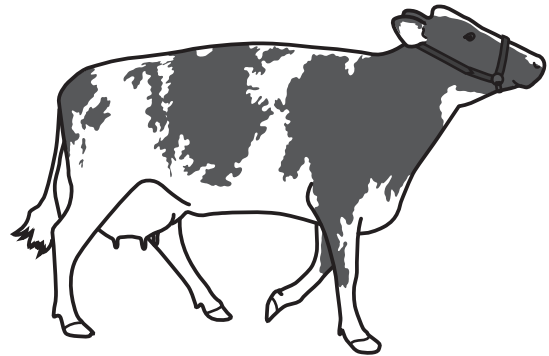
**LONGHORN**



**HEREFORD**



**AYRSHIRE**



**Which of the cattle is a modern, highly selected breed?**

\_\_\_\_\_ [1]

**6 HAY, SILAGE and STRAW are all fodder crops that can be fed to livestock in winter.**

**Describe the differences in production for hay, silage and straw.**

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**[3]**

- 7 Choose the correct word from the list below to complete the following sentences.

**CHROMOSOMES**

**GENE**

**GENOTYPE**

**MUTATIONS**

**PHENOTYPE**

The genetic information of an animal or plant is carried by pairs of \_\_\_\_\_ located in the nucleus of the cell.

Each characteristic is coded for by a particular \_\_\_\_\_ for that characteristic.

All the genetic information of an animal is called its \_\_\_\_\_ and the characteristics that this produces is the

\_\_\_\_\_ [4]

**8 A poultry house has been designed so that it is sitting on a sled. The sled allows the house to be easily moved around the field.**

**Moving the house allows the grass to recover.**

**Suggest TWO other advantages of being able to move the poultry house.**

**advantage 1 \_\_\_\_\_**

\_\_\_\_\_

**advantage 2 \_\_\_\_\_**

\_\_\_\_\_ **[2]**

**9 It is important that a farmer knows when cows come on to heat (are ready to mate).**

**Explain why it is important that a farmer knows when cows come onto heat.**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ **[2]**

**10 A dairy farmer uses a computer to keep his farm records**

**Suggest THREE different types of record farmers might keep on their computers to manage the breeding of their cattle.**

**1** \_\_\_\_\_

**2** \_\_\_\_\_

**3** \_\_\_\_\_ **[3]**

**11 Farmers try to improve their stock by breeding.**

**Suggest TWO things a farmer might try to improve in stock by better breeding.**

**1** \_\_\_\_\_

**2** \_\_\_\_\_ **[2]**

**12 Animals can be farmed using INTENSIVE or EXTENSIVE systems.**

**Each has different features.**

<b><u>INTENSIVE FARM SYSTEM</u></b>	<b><u>EXTENSIVE FARM SYSTEM</u></b>

**Write down the following descriptions in their correct places in the table.**

**animals usually kept outside**

**high labour input**

**animals often kept indoors**

**low energy costs**

**high equipment costs**

**low equipment costs**

**high energy costs**

**low labour input**

**[4]**

**13 You need to be careful when you go near a farm animal.**

**Suggest ONE way you could let the animal know you are moving close to it.**

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[1]

**14 Handling pigs can be difficult.**

**The stockman can use a board to help move a pig by placing the board between himself and the pig's head so that he can use his stick to hold the pig's head close to the board.**

**Suggest how this piece of equipment makes handling pigs safer and easier.**

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[2]



15 Which of the following is NOT a sign of loss of condition?

A dull coat

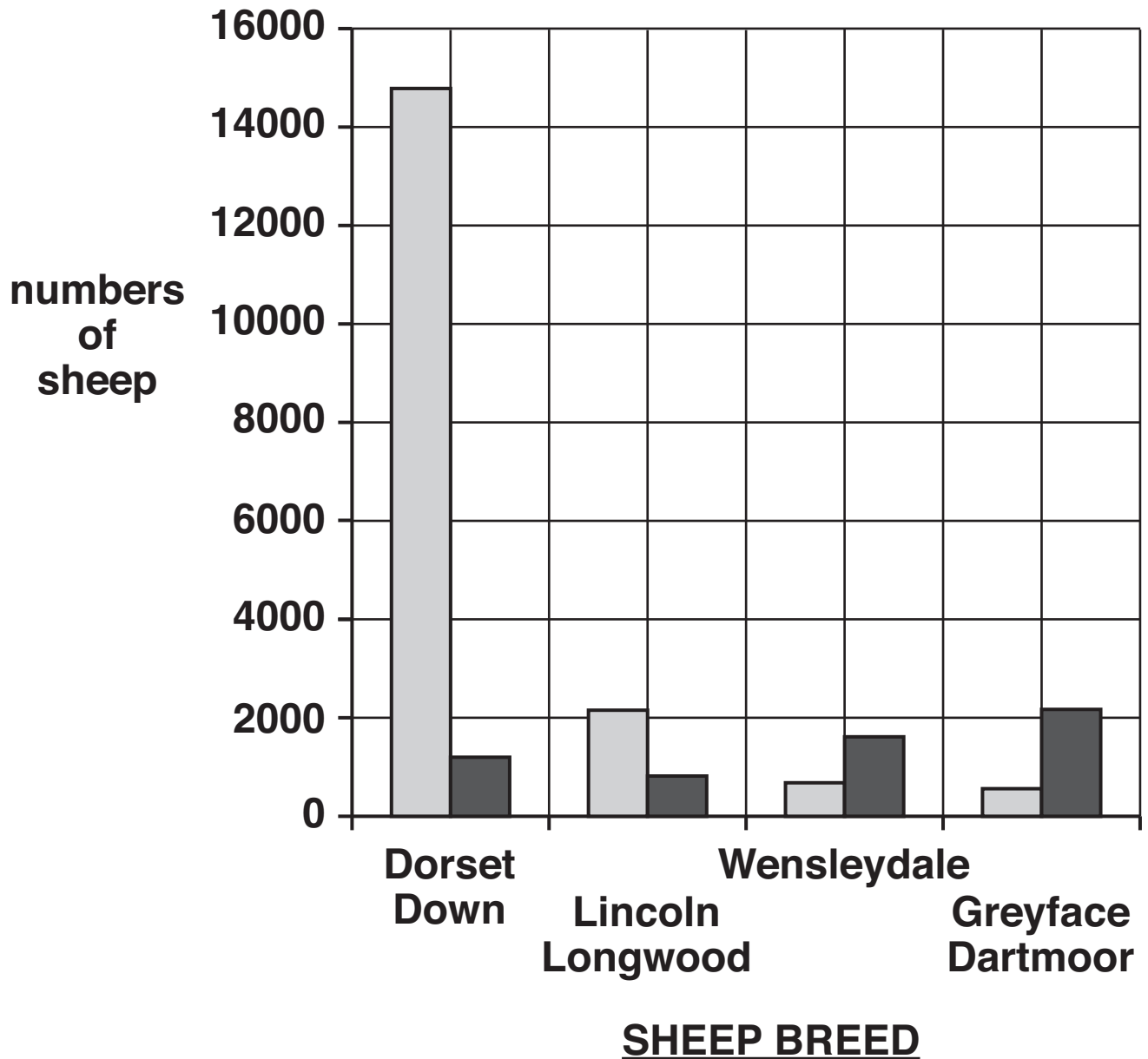
B gaining weight

C poor appetite

D sunken eyes

Answer A, B, C or D \_\_\_\_\_ [1]

16 The graph below shows the changes in numbers of some rare breed of sheep since 1957.



**(a) Which breed of sheep has shown the greatest INCREASE in numbers?**

\_\_\_\_\_ [1]

**(b) Which two breeds of sheep are most at risk of extinction?**

\_\_\_\_\_ and \_\_\_\_\_ [1]

**17 Hens produce eggs of different sizes.**

**These eggs are graded by mass.**

<b>grade</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>range of mass (g)</b>	<b>&gt;70</b>	<b>70–66</b>	<b>65–61</b>	<b>60–56</b>	<b>55–51</b>	<b>50–46</b>	<b>&lt;46</b>

**(a) What is the range of mass for grade 2 eggs?**

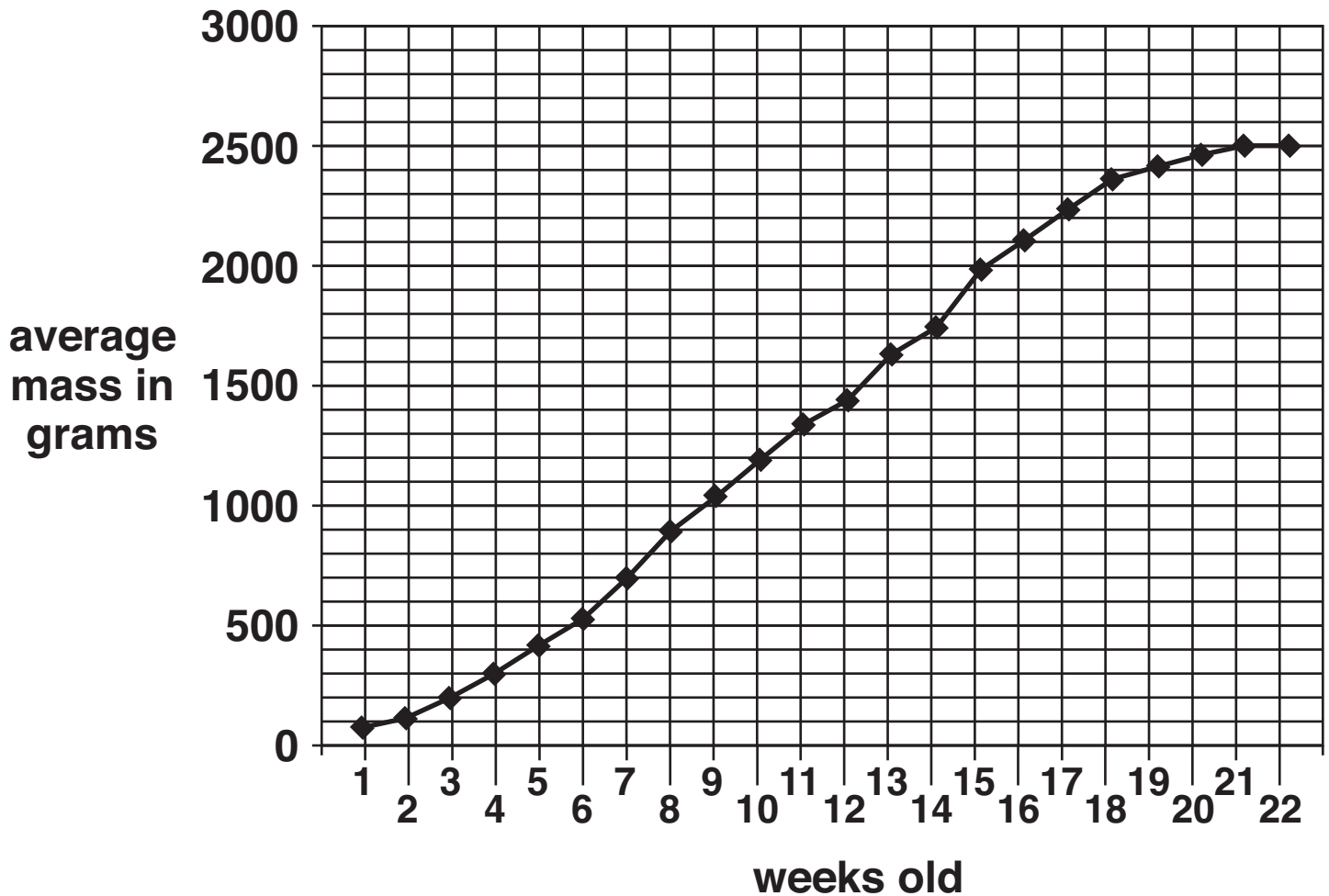
\_\_\_\_\_ [1]

**(b) An egg has a mass of 53 g.**

**What grade is it?**

\_\_\_\_\_ [1]

18 The graph shows how chicks grow.



(a) What is the average mass of the chicks when they are 7 weeks old?

\_\_\_\_\_ [1]

(b) At what age do the chicks stop growing?

\_\_\_\_\_ [1]

**END OF QUESTION PAPER**

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