



**Surname** \_\_\_\_\_

**Forename(s)** \_\_\_\_\_

**Centre Number** \_\_\_\_\_

**Candidate Number** \_\_\_\_\_

**Candidate Signature** \_\_\_\_\_

**I declare this is my own work.**

**A-level**

**PHYSICAL EDUCATION**

**Paper 2 Factors affecting optimal  
performance in physical activity  
and sport**

**7582/2**

**Wednesday 5 June 2024**

**Morning**

**Time allowed: 2 hours**

**[Turn over]**



J U N 2 4 7 5 8 2 2 0 1

**On the front of this book, write your surname and forename(s), your centre number, your candidate number and add your signature.**

## **MATERIALS**

**For this paper you may use:**

- **a calculator.**

## **INSTRUCTIONS**

- **Use black ink or black ball-point pen. Pencil should only be used for drawing.**
- **Answer ALL questions. You must answer the questions in the spaces provided. Do NOT write on blank pages.**
- **If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).**



- **Do all rough work in this book. Cross through any work you do not want to be marked.**

## **INFORMATION**

- **The marks for questions are shown in brackets.**
- **The maximum mark for this paper is 105.**
- **Questions should be answered in continuous prose. You will be assessed on your ability to:**
  - **use good English**
  - **organise information clearly**
  - **use specialist vocabulary where appropriate.**

**DO NOT TURN OVER UNTIL TOLD TO DO SO**



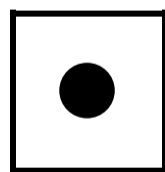
**SECTION A****EXERCISE PHYSIOLOGY AND  
BIOMECHANICS**

**Answer ALL questions in this section.**

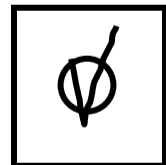
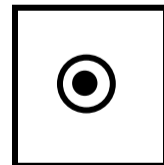
**Only ONE answer per question is allowed.**

**For each question completely fill in the circle alongside the appropriate answer.**

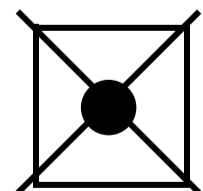
**CORRECT METHOD**



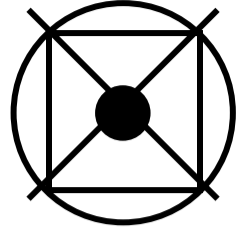
**WRONG METHODS**



**If you want to change your answer you must cross out your original answer as shown.**



**If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.**



**[Turn over]**



0	1
---	---

**Which ONE of the following is an acute injury? [1 mark]**

**A Achilles tendonitis**

**B Dislocated shoulder**

**C Tibial stress fracture**



0	2
---	---

**Which ONE of the following is a correct unit of measurement for acceleration?**  
**[1 mark]**

**A Metres (m)**

**B Metres per second (m/s)**

**C Metres per second squared (m/s<sup>2</sup>)**

**D Seconds (s)**

**[Turn over]**



0 3

**State THREE factors which affect stability. [3 marks]**

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

**04.1**

**Height of release and speed of release are two factors affecting the horizontal displacement of a projectile.**

**Name ONE OTHER factor which affects the horizontal displacement of a projectile. [1 mark]**

---

---

**[Turn over]**



**04.2**

**FIGURE 1, on the opposite page, shows the flight path of a shot put.**

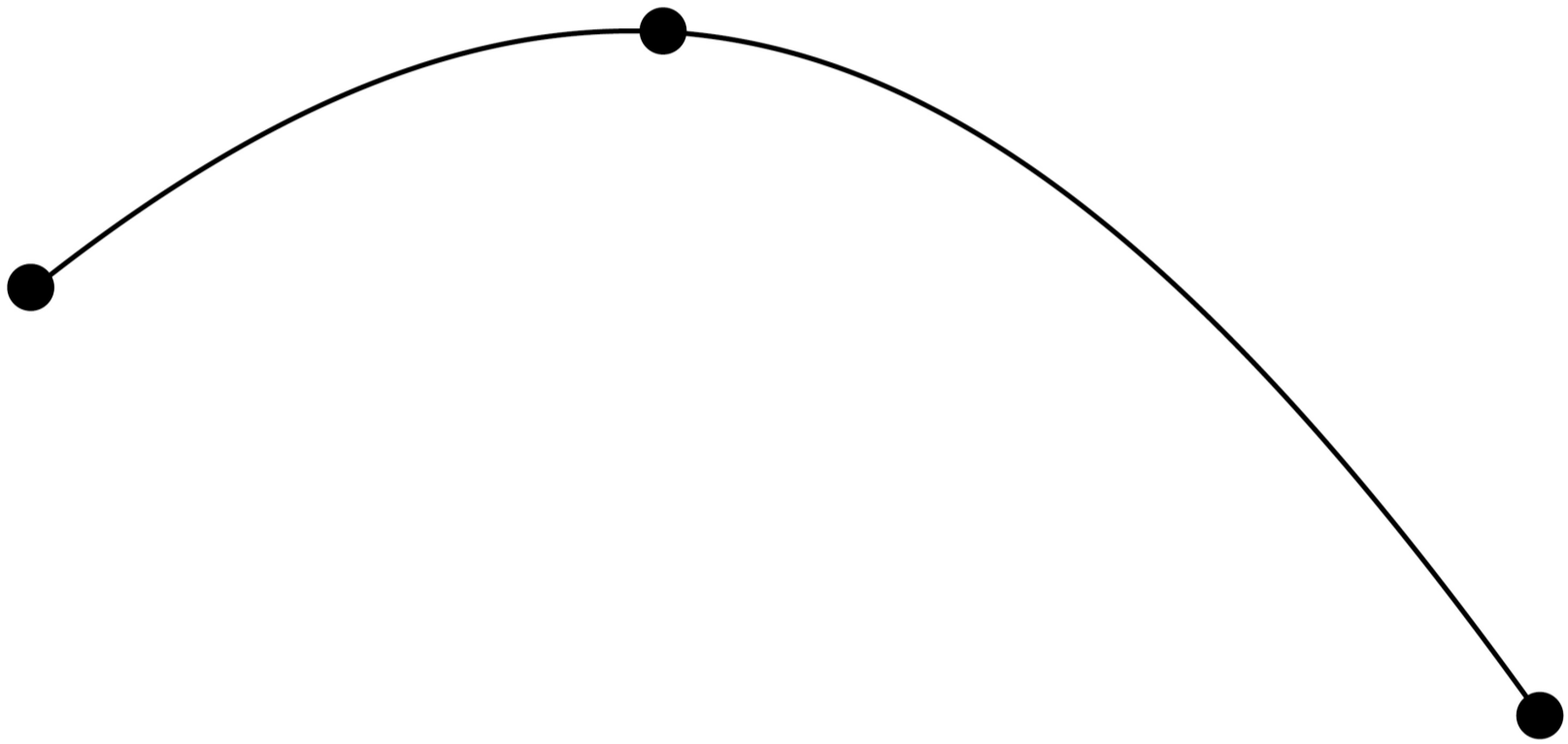
**Sketch the vector components at the three points shown on FIGURE 1 which represent:**

- **the point of release**
- **the highest point of flight**
- **the point immediately before landing.**

**[3 marks]**



**FIGURE 1**



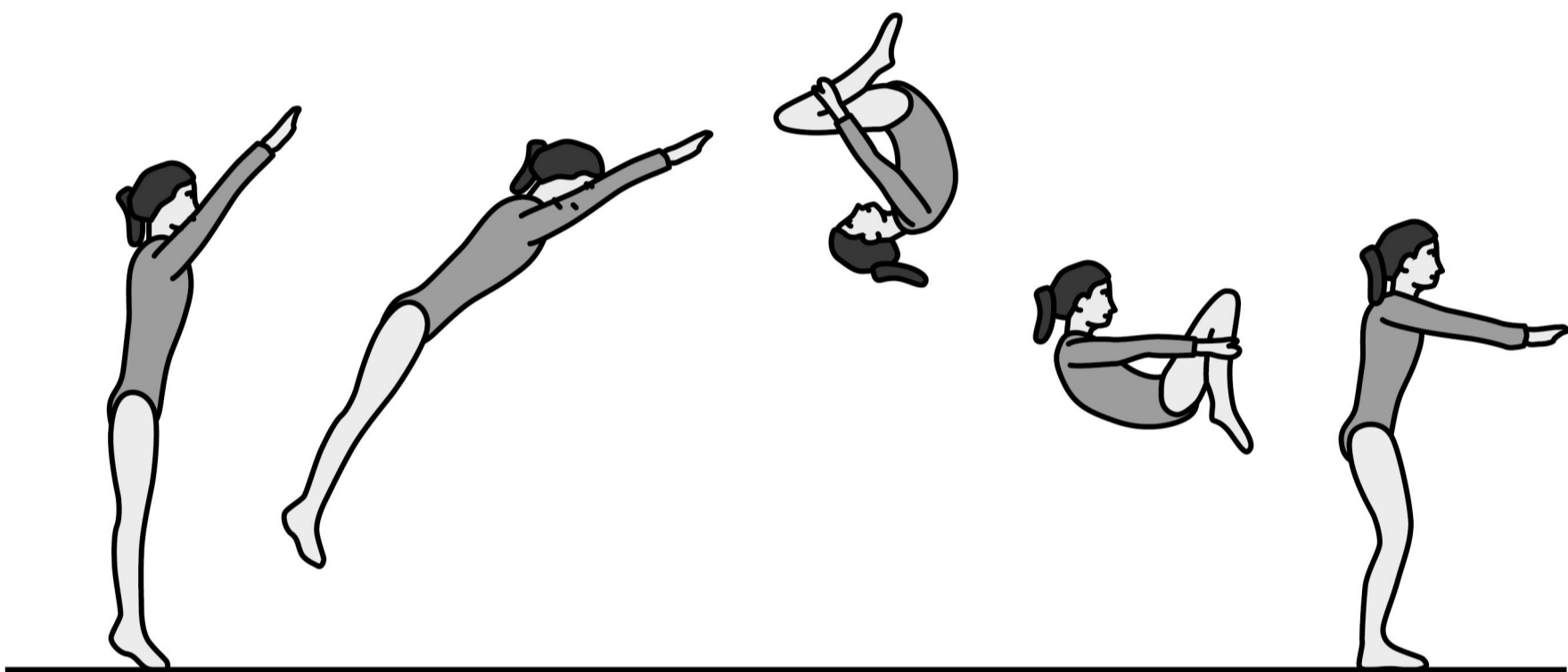
**[Turn over]**



0	5
---	---

**FIGURE 2** shows a gymnast performing a front tuck somersault.

**FIGURE 2**



**Analyse how the gymnast makes use of the principle of conservation of angular momentum when performing this front tuck somersault. [3 marks]**





0	6
---	---

**Following intense exercise elite athletes are required to maximise their recovery.**

**Analyse how nutrition can contribute to effective recovery from intense exercise, resulting in improved performance in the future. [8 marks]**

**You may use this space to plan your answer.**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

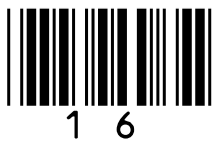
---

---

**[Turn over]**



Lined area for writing.



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

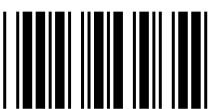
---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**





**07**

**Hayley is training for a half marathon (21 km). Her target is to run the race in 1 hour and 45 minutes.**

**TABLE 1 shows her training programme in the 6 weeks leading up to the race.**

**TABLE 1**

	<b>Mon</b>	<b>Tues</b>	<b>Weds</b>	<b>Thurs</b>	<b>Fri</b>	<b>Sat</b>	<b>Sun</b>
<b>WEEK 1</b>	Rest	Rest	30-minute continuous run	Rest	Rest	5 km continuous run	Rest



<b>WEEK 2</b>	<b>Rest</b>	<b>Rest</b>	<b>Rest</b>	<b>35-minute continuous run</b>	<b>Rest</b>	<b>Rest</b>	<b>6 km continuous run</b>	<b>Rest</b>
<b>WEEK 3</b>	<b>Rest</b>	<b>Rest</b>	<b>Rest</b>	<b>40-minute continuous run</b>	<b>Rest</b>	<b>Rest</b>	<b>7 km continuous run</b>	<b>Rest</b>
<b>WEEK 4</b>	<b>Rest</b>	<b>Rest</b>	<b>Rest</b>	<b>45-minute continuous run</b>	<b>Rest</b>	<b>Rest</b>	<b>8 km continuous run</b>	<b>Rest</b>
<b>WEEK 5</b>	<b>Rest</b>	<b>Rest</b>	<b>Rest</b>	<b>50-minute continuous run</b>	<b>Rest</b>	<b>Rest</b>	<b>9 km continuous run</b>	<b>Rest</b>
<b>WEEK 6</b>	<b>Rest</b>	<b>Rest</b>	<b>Rest</b>	<b>55-minute continuous run</b>	<b>Rest</b>	<b>Rest</b>	<b>RACE</b>	<b>Rest</b>

**[Turn over]**

**BLANK PAGE**



**Evaluate how well the principles of training have been applied to the training programme shown in TABLE 1, on pages 22 and 23.**

**Refer to ways that Hayley could improve her programme. [15 marks]**

**You may use this space to plan your answer.**

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**









---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**





---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**





**SECTION B****SPORT PSYCHOLOGY**

**Answer ALL questions in this section.**

**0 8**

**Which ONE of the following terms is defined as ‘individual productivity declining as group size increases’?  
[1 mark]**

- A Co-ordinational loss**
- B Faulty group process**
- C Motivation loss**
- D Ringelmann effect**

**[Turn over]**



0	9
---	---

**Which ONE of the following attributions would be categorised as unstable AND external? [1 mark]**

**A I tried hard**

**B I had a favourable refereeing decision**

**C I was the better player**

**D The opposition were poor**



**1 0**

**Bandura's model outlines four factors which will affect a performer's self-efficacy.**

**Describe THREE of these factors.  
[3 marks]**

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

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

**3** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**[Turn over]**



11.1

**Describe a 'performance-related goal'.  
Give an example from the event of  
javelin. [2 marks]**

**Description** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Example** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



11.2

**Give examples of how a javelin thrower can make sure their performance-related goal is measurable and realistic.**

**[2 marks]**

**Measurable** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Realistic** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**[Turn over]**



**1** **2**

**Two dancers perform in front of a large crowd.**

**Analyse why the presence of an audience may impact the performances of each of the two dancers differently.**

**[3 marks]**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



1	3
---	---

**A performer responds badly to losing and gives up easily when faced with challenging situations.**

**The performer's coach does NOT think that these personality traits can be changed.**

**Evaluate whether the coach's view is correct.**

**Refer to personality theories in your answer. [8 marks]**

**You may use this space to plan your answer.**



---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Lined writing area with 22 horizontal lines.

[Turn over]



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---





---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

[Turn over]



1	4
---	---

**One coach believes improving a runner's MOTIVATION is the easiest way to improve their 10 km time.**

**Another coach believes improving a runner's VO<sub>2</sub> MAX is the easiest way to improve their 10 km time.**

**Evaluate these statements.**

**Refer to how the coaches could improve a 10 km runner's motivation and VO<sub>2</sub> max in your answer. [15 marks]**

**You may use this space to plan your answer.**



---

---

---

---

---

---

---

---

---

---

**[Turn over]**









---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



Blank lined paper for writing, consisting of 20 horizontal lines.



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



**SECTION C****SPORT AND SOCIETY AND  
TECHNOLOGY IN SPORT**

**Answer ALL questions in this section.**

**1 5**

**Taking performance-enhancing drugs can result in lasting damage to your health.**

**Which ONE of the following is most likely to occur as a result of taking erythropoietin (EPO)? [1 mark]**

**A Blood clotting**

**B Kidney failure**

**C Liver damage**



1	6
---	---

**A sports scientist uses a metabolic cart to measure the volume of CO<sub>2</sub> expired by an athlete.**

**Which ONE of the following describes the type of data the scientist is collecting? [1 mark]**

**A Qualitative and objective**

**B Qualitative and subjective**

**C Quantitative and objective**

**D Quantitative and subjective**

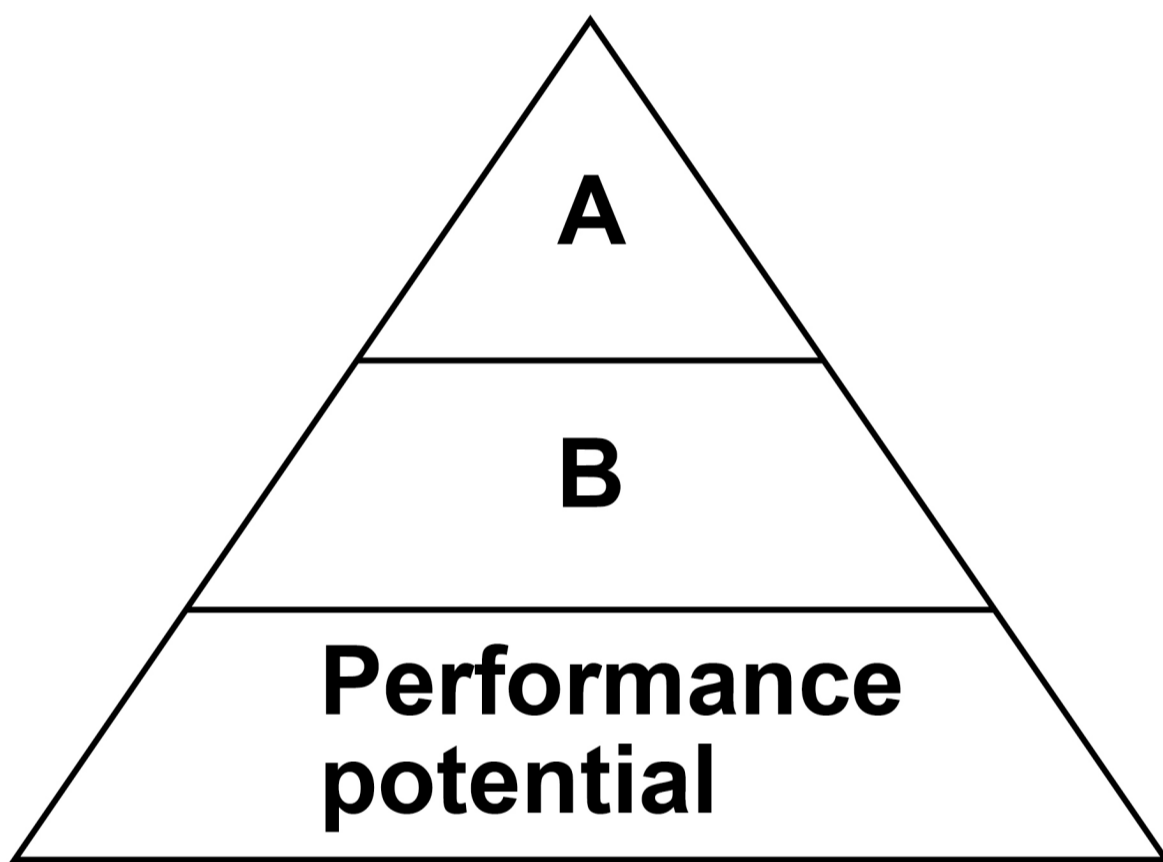
**[Turn over]**



**17.1**

**FIGURE 3 represents UK Sport's World Class Performance Pathway.**

**FIGURE 3**



**Name the stages labelled A and B in FIGURE 3. [2 marks]**

**A**

---

**B**

---



**17.2**

**State how many years away from winning a medal at a major championship an athlete at stages A and B would be.**

**[2 marks]**

**A**

---

**B**

---

**[Turn over]**



**1 8**

**GPS technology can be used to measure the speed of movement and distance covered by players during a team sport.**

**Explain how a coach can use this GPS information to make effective decisions before AND during a game. [3 marks]**

---

---

---

---

---

---

---

---

---

---

---

1 | 9

**Evaluate the impact of technological developments in sport on the audience.  
[3 marks]**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



**20**

**FIGURE 4 shows an elite golfer putting. The golfer is struggling with their putting because of cognitive and somatic anxiety.**

**FIGURE 4**



**Evaluate the use of thought stopping AND beta blockers to reduce the effects of anxiety and improve the golfer's performance in their next competition.  
[8 marks]**

**You may use this space to plan your answer.**

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---





---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

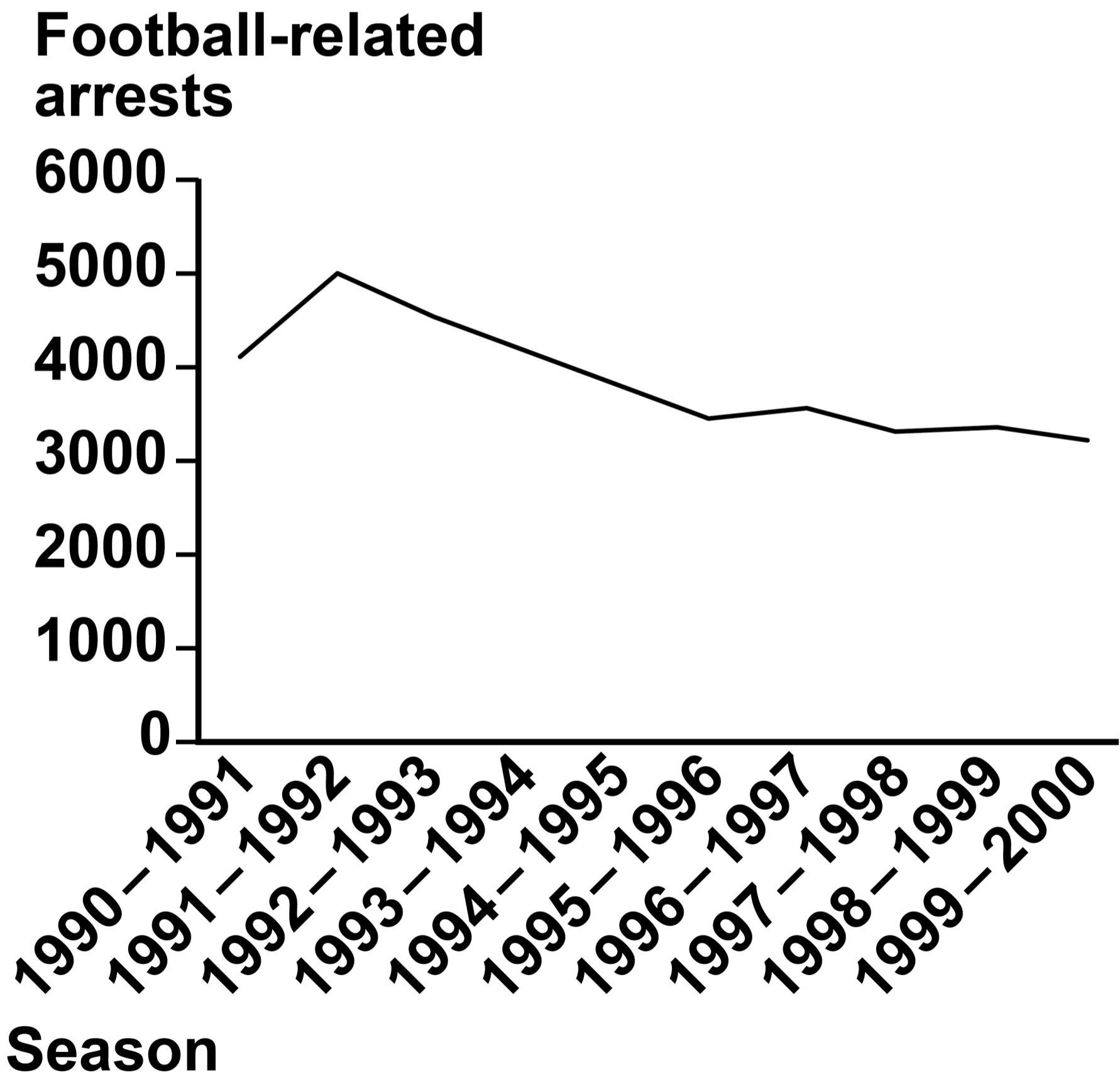




21

**FIGURE 5** shows the total number of football-related arrests in England and Wales for 10 seasons between 1990 and 2000.

**FIGURE 5**



**Evaluate whether strategies used to prevent spectator violence were successful in reducing the number of football-related arrests between 1990 and 2000.**

**Refer to FIGURE 5 in your answer.  
[15 marks]**

**You may use this space to plan your answer.**

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

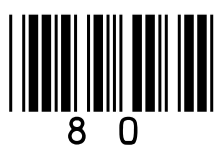
---

---

---

---

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

[Turn over]



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**





**Additional page, if required.**

**Write the question numbers in the left-hand margin.**






**Additional page, if required.**

**Write the question numbers in the left-hand margin.**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



# BLANK PAGE

For Examiner's Use	
Section	Mark
A	
B	
C	
<b>TOTAL</b>	

## Copyright information

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from [www.aqa.org.uk](http://www.aqa.org.uk).

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2024 AQA and its licensors. All rights reserved.

## WP/M/SB/Jun24/7582/2/G4002/V3

