

English

I- Reading Comprehension

Read the following newspaper article and then answer questions 1-7. Circle the answers A, B, C, or D. (7 pts)

The man who battled infinity

For three centuries the greatest minds on the planet were baffled by a seemingly simple equation set by an amateur 17th century mathematician, Pierre de Fermat. The battle to prove Fermat's theory about this equation was a long and hard one and it was not until 1997 that Professor Andrew Wiles received the prestigious Wolfskehl Prize, in recognition of his epic struggle with this 'simple equation' which had become one of the most notorious problems in mathematics: Fermat's Last Theorem.

Wiles first read about Fermat's Last Theorem when, as a schoolboy, he visited his local library: 'One day I borrowed a book about this ancient and unsolved problem. It looked so simple, and yet the greatest mathematicians in history couldn't solve it. Here was a problem I, a 10-year-old, could understand; and I knew from that moment I would never let it go.'

The theorem's creator was a civil servant and mathematician. Having studied an equation, he realised that it was impossible to find a solution to it. Indeed, he claimed that he could prove it was impossible to solve this particular equation, but the mischievous Frenchman never committed his proof to paper.

For thirty years, teachers, lecturers and then colleagues told Wiles he was wasting his time but he never gave up. When he eventually spotted a potential strategy, the maverick mathematician did not publicise his idea. Instead he worked in complete isolation. Only his wife knew of the new direction his work had taken.

He believed his approach was right, but feared that rival mathematicians might beat him to the proof if they discovered his plan. Making his strategy succeed would take seven years of dedicated effort, conducted in complete secrecy. During this period, Wiles continued to publish papers of conventional calculations every year to put his peers off the scent.

To show that no numbers fitted the equation, Wiles had to confront infinity – the mathematician's nightmare. He likens his experience to a journey through a dark, unexplored mansion: 'You enter the first room and it's completely dark. You stumble around, bumping into the furniture. After six months or so you find the light switch and suddenly everything is illuminated. Then you move into the next room and spend another six months in the dark. Although each of these breakthroughs can be momentary, they are the culmination of many months of stumbling around in the dark.'

In June 1993, Wiles revealed to the world that he had proved Fermat's Last Theorem. The achievement was the mathematical equivalent of splitting the atom. However, within a few months referees spotted an error in the proof. Wiles attempted to fix it before news of the error had leaked out, but he failed. By the end of 1993, the mathematical community was full of gossip and rumour, with many academics criticising Wiles because he refused to release the flawed calculations, thus preventing others from fixing the error.

Wiles spent an agonising year before making the final breakthrough that resurrected his proof. 'It was so indescribably beautiful. I stared at the calculation in disbelief for 20 minutes. It was the most important moment of my working life.'

The sheer complexity of the proof shows it can't possibly be the proof Fermat had in mind, and some mathematicians are continuing the search for the original 17th century proof. For Wiles it's finally all over. 'I was obsessed with this problem for eight years. This particular odyssey is over. My mind is at rest.'

1. How did Wiles feel about Fermat's Last Theorem?
 - A. He was obsessed with it.
 - B. He couldn't understand it.
 - C. He was worried about it.
 - D. He didn't think he could solve it.
2. Why is Fermat described as 'the mischievous Frenchman'?
 - A. He said it was impossible to find a solution to the equation.
 - B. He only did mathematics in his spare time as a hobby.
 - C. The proof he claimed to have discovered was not written down.
 - D. He would not say whether he had found a proof or not.
3. Why were Wile's teachers and colleagues discouraging about his project?
 - A. They thought he had adopted the wrong approach.
 - B. They did not know he had found a strategy.
 - C. They did not know his wife knew about it.
 - D. They thought the problem was unsolvable.
4. How did Wiles avoid attracting suspicion?
 - A. He was very secretive about his work.
 - B. He carried on doing his normal work.
 - C. He was extremely dedicated to his work.
 - D. He published papers about the proof.
5. What did the process of arriving at a proof involve?
 - A. Long periods of bewilderment followed by flashes of understanding.
 - B. Careful, painstaking work which gradually began to reveal a solution.
 - C. A series of sudden realisations leading to a final answer.
 - D. A long journey of exploration at the end of which the solution was revealed.
6. Why did other mathematicians criticise Wiles in 1993?
 - A. There were errors in the original proof.
 - B. He could not fix the errors in the original proof.
 - C. He would not let others work on his original proof.
 - D. He allowed rumors about the original proof to circulate.

7. The equation Fermat and Wiles studied
- was solvable but Wiles couldn't work out the solution.
 - was solvable and Wiles eventually worked out the solution.
 - was unsolvable but Wiles couldn't prove this.
 - was unsolvable and Wiles eventually proved this.

II- English in Use:

In most lines of the following text there is one extra unnecessary word. It is either grammatically incorrect or does not fit in with the sense of the text. For each numbered line (1-6) find this word and then write it in the box. Some lines are correct. Indicate these lines with a (✓) in the box. The exercise begins with two examples (0) and (00). (8 pts)

THE SHAKESPEARE CONTROVERSY

- 0 The alleged mystery of William Shakespeare has been
 00 fascinated the world for more than a century. Did a lowly
 1 commoner from Stratford-on-Avon with only a few years
 2 of public schooling really could write some of the greatest
 3 works in the English language? Was he just a front man for
 4 an aristocrat who wanted the anonymity? Today's authorities
 5 say that without a doubt, Shakespeare who was the true author.
 6 It is important to remember at the same time as that he did not
 7 just create plays on his own. He had fulfilled commissions, he
 8 contributed to plays which had scenes written by such different
 9 dramatists and he revised other writers' work. Nor did Shakespeare
 10 own of his manuscripts: they were the property of whichever acting
 11 company he was writing it for. He probably got his information
 12 on court intrigue from books and gossip but it is quite harder to
 13 imagine that an aristocrat reproducing the slang of the common
 14 tavern which is as much characteristic of Shakespeare's plays as
 15 courtly language. Most readers find out more questions than
 16 answers in Shakespeare's plays, but whether they were written
 by a certain hard-working man from Stratford is no mystery at all.

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III- Grammar:

A- Substitution and Ellipsis:

Look at these mini-dialogues and decide which, if any, of the responses is NOT POSSIBLE. Circle the correct answer (s). If the four are correct, circle them all. (5 pts)

1. A: Do you think Tony will ever speak to his brother again?
 B: a) He might
 b) He might do.

- c) He might do it.
d) He might not.
2. A: Are you and Simon going to have any more children?
B: a) We hope we will.
b) We hope so.
c) We hope we are.
d) We hope we are going.
3. A: Would your little boy like an icecream?
B: a) No, thank you. He's just had.
b) No, thank you. He's just had one.
c) No, thank you. I don't think he should.
d) No, thank you. He doesn't want.
4. A: Where you thinking of coming into the office tomorrow?
B: a) No, but I can do.
b) No, but I can.
c) No, but I can be.
d) No, but I can be thinking.
5. A: Which of your sisters is it that works as a social worker?
B: a) The eldest
b) The eldest one.
c) None of them do.
d) None.

B- Hypothetical meaning:

Circle the correct alternative in order to complete the following sentences in a meaningful way.
(5 pts)

1. I know Adela wishes she **has/ would have/ could have** another baby, but the doctor say it might not be possible.
2. If only I **hadn't got/ wouldn't have got/ didn't get** so angry with Patrick last time we met.
3. It's high time your children **start/ will start/ started** helping your mother around the house a bit more.
4. I'd rather we **wait/ waited/ has waited** before telling Billy he's going to have a little brother.

5. Suppose you have had/ had had/ would have had triplets instead of twins. Do you think you would have been able to manage?

C- Reported speech:

Rewrite the following sentences in reported speech using one of the reporting verbs in the box.
(9 pts)

promise remind warn apologise admit suggest promise deny agree accuse

1. "I'll take you out to dinner on your birthday this year without fail," her boyfriend told her.

2. "It wasn't me who broke the vase," said the girl.

3. "Yes, it's true. I have been spending a lot of time with Andrew," said Sarah.

4. "Why don't you take out a subscription to an English magazine?" his teacher asked him.

5. "You mustn't forget to buy your husband a present for your wedding anniversary," her personal assistant told her.

6. "Sitting in the sun will make your head cold worse, you know," the woman told her husband.

7. "I know you've been seeing someone else all the time we've been together," said John to Sarah.

8. "All right. I'll cook the dinner for a change," said Jane.

9. "I'm really sorry I spoke to you all so rudely yesterday," the head of department told them.

D- Reported speech and Passive

Put these reported speech sentences into the passive. (6 pts)

1. Lots of people think the universe is expanding.

2. Many scientists believe that the breakthrough in genetics will lead to a cure for cancer.

3. Dr. Smith fears there are as few as fifteen tigers left in the region.

4. People thought that the volcano was dormant.

5. A scientist has suggested that building barriers might protect the city from eruptions.

6. A government representative announced earlier today that the use of insecticides was to be banned.
