

Bradford Grammar School

Sample Entrance Examination

Specimen Questions

Year 8

(12+)



English Specimen Paper Year 8

Time Allowed: 1 hour 15 minutes

Spend 40 minutes on Section A Spend 35 Minutes on Section B

Read through the passage very carefully. You should spend at least five minutes reading and re-reading the extract before you answer the questions.

Sherlock Holmes and Dr Watson

This extract is taken from the novel 'A Study in Scarlet' by Arthur Conan Doyle and was written in 1887. The narrator of the passage, Dr Watson, describes his new room-mate Sherlock Holmes, whom he is meeting for the first time, and tries to work out what Holmes might do for a living.

- 5 Holmes was certainly not a difficult man to live with. He was quiet in his ways, and his habits were regular. It was rare for him to be up after ten at night, and he had invariably breakfasted and gone out before I rose in the morning. Sometimes he spent his day at the chemical laboratory, sometimes in the dissecting-rooms, and occasionally in long walks, which appeared to take him into the lowest portions of the City. Nothing could exceed his energy
- 10 when the working fit was upon him; but now and again a reaction would seize him, and for days on end he would lie upon the sofa in the sitting-room, hardly uttering a word or moving a muscle from morning to night. On these occasions I have noticed such a dreamy, vacant expression in his eyes, that I might have suspected him of being addicted to the use of some narcotic, had not the temperance and cleanliness of his whole life forbidden such a notion.
- 15 As the weeks went by, my interest in him and my curiosity as to his aims in life gradually deepened and increased. His very person and appearance were such as to strike the attention of the most casual observer. In height he was rather over six feet, and so excessively lean that he seemed to be considerably taller. His eyes were sharp and piercing, save during those intervals of torpor to which I have alluded; and his thin, hawk-like nose gave his whole
- 20 expression an air of alertness and decision. His chin, too, had the prominence and squareness which mark the man of determination. His hands were invariably blotted with ink and stained with chemicals, yet he was possessed of extraordinary delicacy of touch, as I frequently had occasion to observe when I watched him manipulating his fragile philosophical instruments. The reader may set me down as a hopeless busybody, when I confess how much this man
- 25 stimulated my curiosity, and how often I endeavoured to break through the reticence which he showed on all that concerned himself. Before pronouncing judgment, however, be it remembered how objectless was my life, and how little there was to engage my attention. My health forbade me from venturing out unless the weather was exceptionally genial, and I had no friends who would call upon me and break the monotony of my daily existence. Under these
- 30 circumstances, I eagerly hailed the little mystery which hung around my companion, and spent much of my time in endeavouring to unravel it.
 His ignorance was as remarkable as his knowledge. Of contemporary literature, philosophy and politics he appeared to know next to nothing. My surprise reached a climax, however, when I found incidentally that he was ignorant of the Copernican Theory of the composition of
- 35 the Solar System. That any civilised human being in this nineteenth century should not be aware that the earth travelled round the sun appeared to be to me such an extraordinary fact that I could hardly realize it.

"You appear to be astonished," he said, smiling at my expression of surprise. "Now that I do know it I shall do my best to forget it."

40 "To forget it!"

"You see," he explained, "I consider that a man's brain originally is like a little empty attic, and you have to stock it with such furniture as you choose. A fool takes in all the lumber of every sort that he comes across, so that the knowledge which might be useful to him gets crowded

out, or at best is jumbled up with a lot of other things so that he has a difficulty in laying his

- 45 hands upon it. Now the skilful workman is very careful indeed as to what he takes into his brain-attic. He will have nothing but the tools which may help him in doing his work, but of these he has a large assortment, and all in the most perfect order. It is a mistake to think that that little room has elastic walls and can distend to any extent. Depend upon it, there comes a time when for every addition of knowledge you forget something that you knew before. It is
- of the highest importance, therefore, not to have useless facts elbowing out the useful ones."
 "But the Solar System!" I protested.
 "What the deuce is it to me?" he interrupted impatiently; "you say that we go round the sun. If

we went round the moon it would not make a pennyworth of difference to me or to my work."

Section A: Reading

You are advised to spend 40 minutes on Section A.

1.	Write down four things that we discover about Sherlock Holmes in the first three sentences, lines 5-7.		
		[4 morks]	
		[4 marks]	
2.	Focusing on the rest of the first paragraph, lines 5-14, what other impressions do you get of Sherlock Holmes from his habits and behaviour? Choose three quotations and explain what they reveal.		
		[6 marks]	
3.	According to the opening sentence of paragraph two, how does Watson react to his new room-mate?		
		14	
		[1 mark]	
4.	What do you think the following words mean:		
	a) uttering (line 11)		
	b) torpor (line 19)		
	c) prominence (line 20)		
		[3 marks]	

5.	In your own words describe what ' extraordinary delicacy of touch' means in line 22.		
		[1 mark]	
6.	Suggest a word that could replace ' extraordinary ' in line 22.		
		[1 mark]	
7.	How does the writer bring his description of Sherlock Holmes in the second paragraph to life through his choice of physical detail?		
	Choose three quotations and discuss them, making relevant comments about how language is used.		
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-		[6 marks]	
8.	What impression do you get of the character of Dr Watson from the third paragraph, lines 24-31? Choose two quotations and discuss them in your ans	wer.	
-			
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•			
-			
•		[4 marks]	

9.	What is Theory	Sherlock Holmes' knowledge of and attitude towards the Copernican of the composition of the Solar System?	
			 [2 marks]
10	Name th attic' on	ne literary technique that the writer uses in the phrase 'like a little empt line 41.	у
			 [1 mark]
11	Find in t giving th	the passage and write down one example of each of the following word the line number of the example you have found:	ds,
	a)	Proper noun	
	b)	Superlative adjective	
	c)	Pronoun	
	d)	Adverb	[4 marks]
12	What is	Sherlock Holmes' general attitude to knowledge in lines 41-53?	
			[2 marks]

You are advised to spend <u>35 minutes</u> on this section.

Use the picture over the page as inspiration for a piece of writing. This can be a narrative or description (but not poetry). Please write no more than 6 paragraphs. You will be assessed on the overall quality of your writing and correct spelling, punctuation and grammar.

ANSWERS NOT LINKED TO THE THIS PICTURE WILL BE PENALISED

25 marks are available for how well you write the story and another 25 marks for your spelling punctuation and grammar

- You should write in complete sentences and paragraphs
- Remember to write neatly and take care with **spelling** and **punctuation**
- Remember to punctuate **<u>speech</u>** properly if you write a narrative
- Be **imaginative** with your sentences, punctuation, vocabulary and ideas show how well you can write

Some space for planning if you wish to use it. This planning will not be marked.



Write down the title for your piece of writing in this box:

- If you have time at the end
 Check your work carefully
 Correct any mistakes you notice
 Add more detail if you can



Maths Specimen Paper

Year 8

Time Allowed: 1 hour 15 minutes

You must not use a calculator to answer any questions in this exam



Calculators must NOT be used. Remember to show all your working. Write your answers in the spaces provided. Answer all questions.

1.(**a**)Add

2018 + 1999



(b) Add

812018 + 181999









4. (a) What is the remainder when we divide



(b) What is the remainder when we divide 815675 by 9?

•	
	(5 marks)

5. The table gives the distance, in kilometres, between some UK towns and cities.



The distance between Bradford and Leeds is 16 km.

What is the distance between Manchester and Bradford?

What is the distance between Sheffield and Coventry?

Nicola travels from Birmingham to Leeds and then to Manchester. How far does she travel?

How much shorter would her journey be if she travelled to Manchester first and then to Leeds?

Í		
	(8	marks)







(a) Write three *different* decimals, *each greater than zero*, which add together to make a total of 1.2



(b) Write two decimals, each less than 1, which multiply to make 0.12



(5 marks)

7. A letter is chosen at random from the word

PARALLELOGRAM

What is the probability it is:

- (a) The letter L
- (b) A vowel
- (c) It comes after L in the alphabet
- (d) The letter T









(5 marks)

8. Eleanor wins ± 200 for first place in a maths competition. She decides to share her money with her brother and sister. She gives her brother, Eric, one quarter of the money, and she gives her sister, Emma, 3/8 of the money.

What fraction of the money does Eleanor get?

N	
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How much money does Emma receive?

9.

The time on the clock is 3 o'clock. How many degrees does the big hand have to turn through to get to quarter past 3?





How many degrees does the big hand turn between 3 o'clock and twenty past 3?



How many degrees does the little hand turn in half an hour?



(7 marks)

(5 marks)

Sandwiches cost £1.20 each, apples cost 50p each, orange juice cost 70p and a cup of tea costs £2.10.
 Laura and her mum buy a cup of tea, a glass of orange juice, two sandwiches and an apple.

They pay using a £10 note. How much change do they get?



(5 marks)

- 11. Write down the next two numbers in each of the following number patterns:
 - (a) 2, 8, 14, 20, 26, ..., ...,
 - (b) 3, 6, 12, 24, 48, ..., ...,
 - (c) 1, 4, 9, 16, 25, ..., ...,
 - (d) 1, 3, 4, 7, 11, 18, ..., ...,

N and







(8 marks)

12. Four children are revising for the entrance exam.Becky does twice as many practice questions as Asif.Charlie does twice as many practice questions as Becky.Danyal does twice as many practice questions as Charlie.

They do thirty questions altogether.

How many questions does Danyal do?







A fifth child, Emily, does twice as many questions as the others put together. She gets 20% of them wrong. How many questions does she get right? (Give your answer as a number, not a percentage)





(6 marks)

13. (a) How many odd numbers are there between 2 and 12?



(b) How many odd numbers are there between 2 and 32?



(c) How many odd numbers are there between 12 and 32?



(d) How many odd numbers are there between 2 and 20002?



(7 marks)

14. (a)



(b)

Now I think of a number, and then double it. I still have the number I started with. What was my original number?





(3 marks)

15. (a) The diagram below has no lines of symmetry. Shade two of the small squares so there is now at least one line of symmetry.



(b) The diagram below is symmetrical. Shade two of the small squares so there is now no symmetry.

(2 marks)

16. (a) The angles in a triangle add up to 180°.

Find the values of x, y, and z in the following diagram.



(b) A pentagon is a five sided shape. What do the angles inside a pentagon add up to?



(8)	marks))
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17. (a) The mean of two numbers is 12

One of the numbers is 10

What is the other number?

		The other number is	
--	--	---------------------	--

(b)(i) What two numbers should be added to the list:

2 3 4 5 6 to make the mode 1

The numbers are

(ii) What will the median of the seven numbers now be?



(c) The range of a set of data is the difference between the largest number and the smallest number.
 Write down three numbers which have a range of 50 and a median of 17

The numbers are	

(7 marks)

18. If we put the letter E in the missing spaces of S V NWe get the number 7.

> Find the missing letter we need to put in the spaces of the following So that we get other numbers.





19. Dolly starts doing her homework at 6 p.m.

She spends 40 minutes on maths then has a 5 minute break. Then she starts her English homework, finishing at 7.20 p.m.

How long did her English take?



She then watches her favourite TV programme which starts at 7.30 p.m. It lasts three times as long as she took to do her maths homework.

What time does the program finish?





(4 marks)

20. In a certain code, A = 1, B = 2, C = 3, D = 4, E = 5, ... etc. Words are encoded by multiplying together the values of their letters, so the code for TEN is: $20 \times 5 \times 14 = 1400$. Similarly, the code for NINE is: $14 \times 9 \times 14 \times 5 = 8820$. What is the code for TWO?

N

(4 marks)