



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

---

**GEOGRAPHY**

**0460/43**

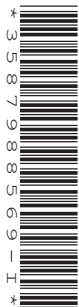
Paper 4 Alternative to Coursework

**October/November 2018**

INSERT

**1 hour 30 minutes**

---



**READ THESE INSTRUCTIONS FIRST**

The Insert contains Figs. 1.1, 1.2, 1.3, 1.4 and Tables 1.2, 1.3 and 1.4 for Question 1, and Table 2.1 for Question 2.

The Insert is **not** required by the Examiner.

---

This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

---

This document consists of **8** printed pages.

**Fig. 1.1 for Question 1**

**Ashes Hollow stream**



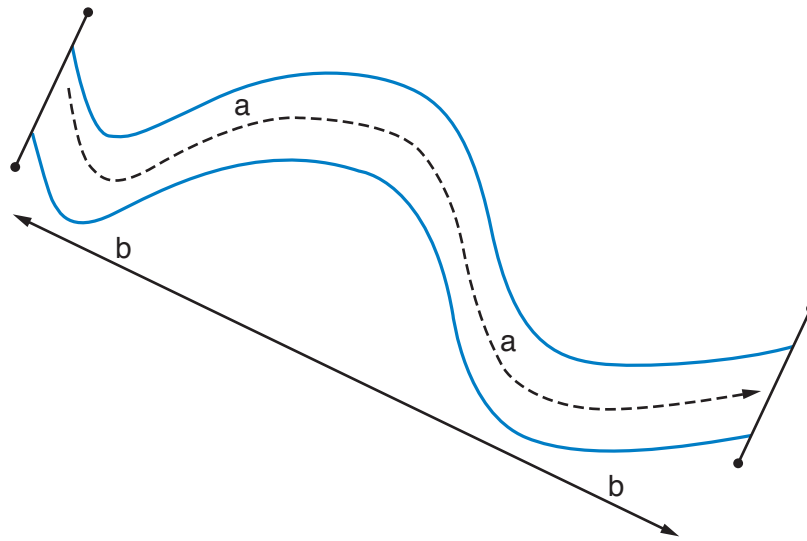
Fig. 1.2 for Question 1

Ashes Hollow waterfall



Fig. 1.3 for Question 1

## Sinuosity of a stream



$$\text{Sinuosity} = \frac{a}{b}$$

a is the distance measured along the stream (m)

b is the straight line distance (m)

Fig. 1.4 for Question 1

Photographs from student's notebook showing measurement methods

Photograph A



Photograph B



Photograph C



Table 1.2 for Question 1

## Channel cross sectional area at the 12 sites


Site number		Cross sectional area of channel (sqm)
1	upstream  downstream	0.12
2		1.52
3		<b>0.51</b>
4		0.32
5		1.65
6		0.71
<b>waterfall</b>		
7		0.23
8		3.65
9		0.89
10		1.83
11		4.21
12	0.84	

Table 1.3 for Question 1

## Sinuosity score at the 12 sites

Site number		Distance measured along stream (m)	Straight line distance (m)	Sinuosity score	Average sinuosity score
1	upstream ↑	119.4	100	1.19	sites 1–6 = 1.11
2		118.0	100	1.18	
3		117.1	100	1.17	
4		105.5	100	1.06	
5		101.4	100	1.01	
6		104.0	100	1.04	
<b>waterfall</b>					
7	↓ downstream	120.8	100	1.21	sites 7–12 = 1.35
8		114.0	100	1.14	
9		162.7	100	1.63	
10		153.0	100	<b>1.53</b>	
11		124.2	100	1.24	
12		137.1	100	1.37	

Table 1.4 for Question 1

## Width of valley floor

Site number		Width of valley floor (m)
1	upstream ↑	2.4
2		18.2
3		24.7
4		5.0
5		16.7
6		8.8
<b>waterfall</b>		
7	↓ downstream	4.2
8		<b>8.4</b>
9		6.1
10		10.3
11		21.1
12		28.0

Table 2.1 for Question 2

## Results of environmental quality survey

Main land use	Site reference	Distance from town centre (km)	Environmental quality score
Industry	IN1	2.6	10
	IN2	3.5	8
	IN3	4.6	11
	IN4	5.5	17
	IN5	1.2	7
			<b>Average = 10.6</b>
Open space	O1	5.8	12
	O2	3.1	16
	O3	4.0	6
	O4	1.0	13
	O5	4.5	15
			<b>Average = 12.4</b>
Residential	R1	1.4	<b>8</b>
	R2	5.3	10
	R3	3.8	20
	R4	4.4	17
	R5	2.0	12
			<b>Average = 13.4</b>
Shops	S1	0.2	20
	S2	0.8	17
	S3	5.1	16
	S4	2.9	13
	S5	<b>1.7</b>	<b>15</b>
			<b>Average = 16.2</b>

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at [www.cie.org.uk](http://www.cie.org.uk) after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.