Cambridge Assessment International Education

Cambridge Lower Secondary Checkpoint

MATHEMATICS **1112/01**

Paper 1 **April 2020**

MARK SCHEME

Maximum Mark: 50

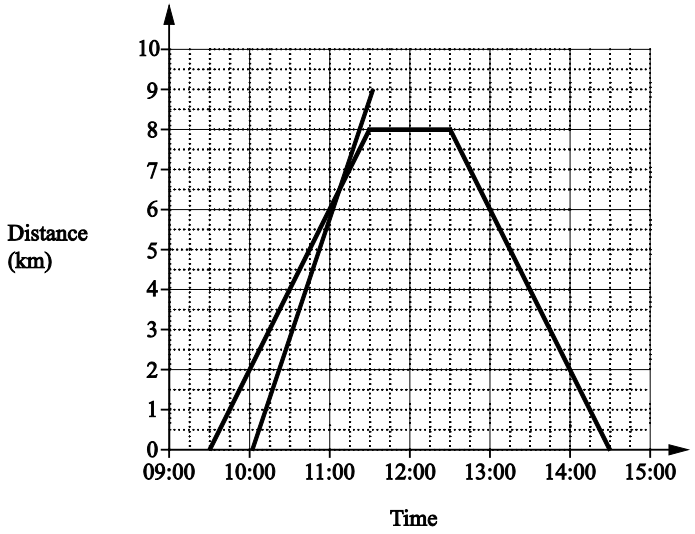
Published

This mark scheme is published as an aid to teachers and learners, to indicate the requirements of the examination. However, we have not been able to adjust it to reflect the full range of answers that would have been seen as a part of the normal moderation and marking process, and it does not necessarily contain all the possible alternatives that might have arisen. Cambridge will not enter into discussions about the mark scheme.

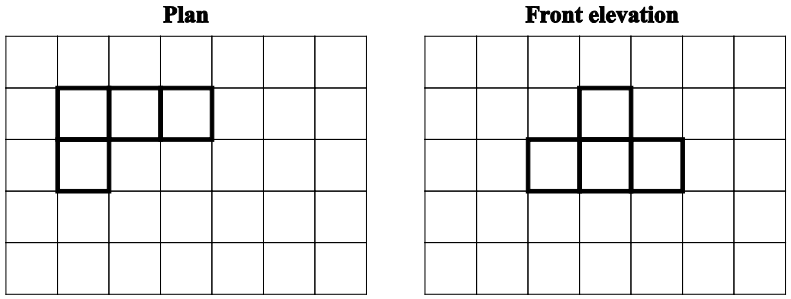
This document has **14** pages. Blank pages are indicated.

Question	Answer	Mark	Further Information
1	36	**1**	
2	x^9	**1**	
3(a)	$4\frac{2}{3}$	**1**	
3(b)	25(%)	**1**	
4	$-7p$	**1**	
5	(x =) 8	**1**	
6	(–2, –1)	**1**	
7(a)	5	**1**	
7(b)	Coffee	**1**	
8	500 (mm^2)	**1**	
9(a)	10^4 **and** 100 000	**1**	
9(b)	120	**1**	

Question	Answer	Mark	Further Information
10(a)	C H A N E	**1**	Accept in any order. Do not allow more than one C.
10(b)	$\frac{2}{6}$	**1**	Accept equivalent fraction, decimal or percentage. Accept 0.33 or better. Do not accept answer as a ratio (2:6) or in words.
11	Gabriella = 18 (kg) Pierre = 48 (kg)	**3**	
	[(110 + 154) ÷ 4] ÷ 11	**M2**	Implied by 6 or one correct mass found.
	(110 + 154) ÷ 4	**M1**	Implied by 66 Only award M1 if M2 not given.
12	Ticks or indicates the box for *correct* **and** shows 30 students (School A) and 30 (School B).	**2**	
	Award 1 mark for: • writes that 15% of 200 is the same as 25% of 120 • 30 seen	**M1**	No marks if box ticked with no supporting work.
13	(6, 11.5)	**1**	11.5 oe
14	42 **and** 0	**1**	Both numbers correctly placed required to get the mark.

Question	Answer	Mark	Further Information
15	$\frac{3}{8}$	**2**	
	$\frac{63}{168}$ **or** $\frac{9}{24}$ **or** $\frac{21}{56}$	**B1**	
	$\frac{1}{12} \times \frac{9}{2}$ **or** $\frac{7}{4} \times \frac{3}{14}$ **or** $\frac{1}{4} \times \frac{3}{2}$	**M1**	Only award if B0 scored.
16(a)	4 (km / h)	**1**	
16(b)		**1**	A straight line from (10:00, 0) to (11:30, 9)

Question	Answer	Mark	Further Information
16(c)	11:00	**1**	Follow through from an incorrect diagram as long as the answer corresponds to the point where the lines cross. Allow a tolerance of $\frac{1}{2}$ square.
17	40 (cm)	**2**	Allow 40(.0...)
	27.72 **or** 12.28	**B1**	
	10×4 **or** $(6.93 \times 4) + (3.07 \times 4)$	**M1**	Only award if B0 scored.
18(a)	2.86	**1**	
18(b)	268.84	**1**	
19	rectangle with sides 6 cm and 3.5 cm	**2**	Tolerance ± 2 mm Any orientation
	1 side correct length **or** 6 **and** 3.5 seen	**B1**	Tolerance ± 2 mm
20	Both answers correct $7.4 + \boxed{-4.3} = 3.1$ $9.4 - -5.7 = \boxed{15.1}$	**2**	
	One answer correct	**B1**	

Question	Answer	Mark	Further Information
21	Any two correct reasons, e.g.: - Ask more people - Ask passengers, not just employees - Ask people throughout the day - Ask people in different months Ask people on different days in March	**2**	With no incorrect reasons.
	One correct reason	**B1**	Ignore incorrect reasons.
22		**2**	For plan : accept any orientation. Accept shading and internal lines. For front elevation : accept outline of shape only (no internal lines.)
	Plan or front elevation correct.	**B1**	
23	18:15 09:59 00:01	**2**	Do not accept 9:59
	One correct answer	**B1**	
24	4	**1**	Do not accept 4 cm or 1:4

Question	Answer	Mark	Further Information
25	True ✓ ✓ False ☐ ☐	**1**	
26	$\frac{3}{4}$	**2**	
	A correct method e.g. $\frac{2}{3}+\frac{\left(\frac{5}{6}-\frac{2}{3}\right)}{2}$ **or** $\left(\frac{2}{3}+\frac{5}{6}\right)\div 2$ **or** finding both $\frac{8}{12}$ and $\frac{10}{12}$	**M1**	M1 implied by an equivalent fraction e.g. $\frac{9}{12}$ or an incorrectly expressed fraction or a decimal e.g. $\frac{4.5}{6}$ or 0.75

Question	Answer	Mark	Further Information
27	27	**3**	
	$36 \times 50 \times 30$ **or** $60\,000 - 4 \times 50 \times 30$ **or** $60 - (4 \times 50 \times 30)/1000$ **or** $\frac{36}{40} \times 60$	**M2**	Implied by 54 000 Implied by 60 000 – 6000 Implied by 60 – 6 or 54 Allow equivalent in mℓ e.g $\frac{36}{40} \times 60\,000$ and equivalent fractions for $\frac{36}{40} \times 60$
	$4 \times 50 \times 30$ **or** $60 \div 2$ **or** $\frac{36}{40}$ **or** $\frac{18}{20}$ **or** $\frac{9}{10}$	**M1**	Allow $60\,000 \div 2000$ Only award M1 if M2 not given.
28	$9 \times 0.1,\ 9 \times 0.85,\ 9 \div 0.5,\ 9 \div 0.18$	**1**	Condone correct values e.g. 0.9, 7.65, 18, 50
29	corresponding **and** *d* **and** they are angles on a straight line	**2**	Condone incorrect spelling.
	two out of three statements correct.	**B1**	