SAMPLE ASSESSMENT MATERIAL
LEVEL 2 FUNCTIONAL SKILLS MATHEMATICS

08849     Non calculator paper

Time allowed: 30 minutes

You must use:

• a pen with black ink
• a HB pencil for graphs and diagrams
• geometric instruments

Do not use

• a calculator

For each question, make sure that you:

• read the questions carefully before starting
• write your answers in this booklet in the space/box provided

Please write clearly with black ink.

Centre number

Candidate number

First name(s)

Last name

Date of birth

INSTRUCTIONS

• Use black ink.
• Answer all the questions.
• Additional paper may be used if required but you must clearly show your candidate number, centre number and question number(s).
• Show your working out for each question. Marks are awarded for your correct working.
• Take \( \pi \) to be 3.14 unless the question says otherwise.

INFORMATION

• The total mark for this paper is 20.
• The marks for each question are shown in brackets [ ].
• This document consists of 8 pages.
1. Find the median of these numbers.

\[
44.76 \quad 43.61 \quad 43.05 \quad 43.87 \quad 44.15 \quad 44.36
\]

……………….. [2]

2. Here are six solids made from identical cubes.

Which two of the solids could have this plan view?

……………….. and ………………….. [2]
Points A and B are shown on the centimetre squared (cm$^2$) grid below.

(a) Point A has coordinates (4, 0).

Write down the coordinates of point B.

( ........... , ........... ) [1]

(b) AB is the base of a triangle ABC.

Find coordinates for point C, so that the triangle ABC has an area of 702 cm$^2$.

( ........... , ........... ) [2]
(a) A window consists of a pane of glass inside a wooden frame.

Calculate the pane width in inches.

Give your answer using a fraction.

............................. inches

(b) The window has an area of 1800 cm². The pane of glass area is 1710 cm².

What percentage of the window is the pane area?

............................. %
This sign has curved corners.

Each curve is a quarter of a circle with a radius of 6 mm.

If the area of the sign is calculated as if it was a rectangle, we get an answer larger than the actual area. This extra area is shaded.

Find the total shaded area. Use 3.1 as the value of $\pi$. 

\[ \text{mm}^2 \]
This is a formula for screen area \((A \text{ cm}^2)\).

\[ A = kd^2 \]

For a screen, \(k = 0.45\) and \(d = 9.1\) cm.

Calculate an estimate of the screen area.

End of paper
SAMPLE ASSESSMENT MATERIAL
08849 – OCR LEVEL 2 FUNCTIONAL SKILLS MATHEMATICS

NON – CALCULATOR PAPER

MARK SCHEME

MAXIMUM MARK 20

Duration: 30 minutes

Version: 1 Last updated: September 2019
(FOR OFFICE USE ONLY)

This document consists of 5 pages
MARKING INSTRUCTIONS

PREPARATION FOR MARKING

MARKING

1. Mark strictly to the mark scheme.

2. Marks awarded must relate directly to the marking criteria.

3. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or by email.

4. Work crossed out:
   a. where a candidate crosses out an answer and provides an alternative response, the crossed out response is not marked and gains no marks
   b. if a candidate crosses out an answer to a whole question and makes no second attempt, and if the inclusion of the answer does not cause a rubric infringement, the assessor should attempt to mark the crossed out answer and award marks appropriately.

5. Always check the pages (and additional lined pages if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add an annotation to confirm that the work has been seen.

Subject-Specific Marking Instructions

6. If the correct answer (detailed in the ‘Answer’ column) is clearly given then full marks should be awarded.

7. Figures or expressions that are being followed through will appear after the word their for clarity, e.g. $180 \times (their \ 37 + 16)$, or $300 - \sqrt{(their \ 5^2 + 7^2)}$. Answers to part questions which are being followed through are indicated by e.g. $3 \times their \ (a)$.

For questions with follow through available you must ensure that you refer back to the relevant previous answer.

8. The following abbreviations are commonly found in Functional Skills mark schemes and in script annotation. They should be followed when annotating scripts in order to clarify where and why credit has been given.
   - ft means follow through indicating when this has occurred.
   - bod means benefit of doubt situations indicating assessor judgement.
   - nfww means not from wrong working.
- **oe** means or equivalent.
- **seen** means that you should award the mark if that number/expression is seen anywhere in the answer space, including the answer line, even if it is not in the method leading to the final answer.
- **soi** means seen or implied.

9. Make no deductions for wrong work after an acceptable answer unless the mark scheme says otherwise, indicated for example by the instruction ‘mark final answer’.

10. As a general principle, if two or more methods are offered, mark only the method that leads to the answer on the answer line. If two (or more) answers are offered, mark the poorer (poorest).

11. If the correct answer is seen in the body and the answer given in the answer space is a clear transcription error allow full marks unless the mark scheme says ‘mark final answer’.

   If the answer space is blank but the correct answer is seen in the body allow full marks.

   If the correct answer is seen in the working but a completely different answer is seen in the answer space, then the answer is incorrect. Use the guidance column to award any available marks for workings.

12. Ranges of answers given in the mark scheme are always inclusive.

13. For methods not provided for in the mark scheme give as far as possible equivalent marks for equivalent work. If in doubt, consult your Team Leader.

14. Anything in the mark scheme which is in brackets (...) is not required for the mark to be earned, but if present it must be correct.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Marks</th>
<th>Guidance</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44.01</td>
<td>2</td>
<td>1 mark: (44.15 + 43.87 = 88.02)</td>
<td>L2D25</td>
</tr>
<tr>
<td>2</td>
<td>B and D</td>
<td>2</td>
<td>1 mark: B or D and at most one errors</td>
<td>L2M21</td>
</tr>
<tr>
<td>3 (a)</td>
<td>((-2, 0))</td>
<td>1</td>
<td></td>
<td>L2M19</td>
</tr>
<tr>
<td>3 (b)</td>
<td>((n, 234)) or ((n, -234)) Where (n) is any number</td>
<td>2</td>
<td>1 mark: (702 \div 6 = 117) or (702 \div 3 = 234) or (702 \div 0.5 = 1404)</td>
<td>L2M16</td>
</tr>
<tr>
<td>4 (a)</td>
<td>(\frac{7}{8}) (accept (\frac{63}{8}))</td>
<td>3</td>
<td>1 mark: (12\frac{1}{4} - 2\frac{3}{16} - 2\frac{3}{16}) soi OR 2 marks: (4\frac{6}{16}) or (10\frac{1}{16}) oesoI</td>
<td>L2N7</td>
</tr>
<tr>
<td>4 (b)</td>
<td>95(%)</td>
<td>2</td>
<td>1 mark: (1710 \div 1800) soi</td>
<td>L2N5</td>
</tr>
<tr>
<td>5</td>
<td>32.4 (mm(^2))</td>
<td>5</td>
<td>1 mark: (\frac{9}{4} \times 6^2) or better soi 1 mark: 27.9 1 mark: 36 - their 27.9 soi 1 mark: 8.1 1 mark: correct answer to their 8.1 (\times 4) (Award credit similarly if approach is via a complete circle from the very start)</td>
<td>L2N10 (2) L2M16 (3)</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Marks</td>
<td>Guidance</td>
<td>Coverage</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>-------</td>
<td>----------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| 6        | 40 or 40.5 supported by working | 3     | 1 mark: 0.5 or 9 soi  
1 mark: $9^2 = 81$ or accept 80 soi  
1 mark: correct answer to $0.5 \times \text{their} 81$ | L2N2 (2)  
L2N3 (1) |

| Total marks | 20 |