Pearson Edexcel Functional Skills – Entry 2

Mathematics
Entry 2
Section A – Non-calculator

Sample Entry 2 sample assessment materials for first teaching September 2019

Time: 25 minutes

Candidate name

Candidate signature Date

You must have a
• black or blue ink pen
• pencil
• ruler
• rubber.

Instructions
• Answer every question.
• You can write or draw to show your answers.
• You must not use a calculator.

Information
• The total number of marks for this section is 7.

Advice
• Read each question carefully.
• Check your work at the end.
• Ask if you do not understand any words.
1 Liv drives her car to work.
   She works out the monthly cost of parking.

   She does this calculation.

   \[ 84 \square 12 = 7 \]

   What is the missing symbol?

   Tick (✓) the correct answer.

   \[ \square \]

   The Examiner explains
   Question and key information is written in bold

   The Examiner explains
   To help you see how the mark scheme works they have been printed alongside each question

   The Examiner explains
   Breakdown of marks for each question

   The Examiner explains
   Reference the subject content within the E2 specification

   The Examiner explains
   Accept any clear indication, for example:
   - tick
   - cross
   - underline
   - circling
   - highlighting

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indicates ÷ and no other</td>
<td>1</td>
<td>E2.4</td>
</tr>
</tbody>
</table>
Liv is thinking about going to work by bus.

The journey by bus takes 52 minutes.

The journey by car takes 35 minutes.

Liv says the car takes 23 minutes less than the bus.

Is Liv correct?

You must show your working.

Show your working and your answer in the box below.

The Examiner explains
Working is essential in this type of question requiring a decision. Candidates must show working with their answer to their decision.

The Examiner explains
Prompts the candidate to give a decision.

Tick (✓) the correct answer.

Yes ( )
No ( )
### Question 2

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Valid process to compare the journeys e.g. 52 – 35 OR 52 – 23 OR 23 + 35 No AND 17 (minutes) OR No AND 29 (minutes) OR No AND 58 (minutes) OR No AND 6 (minutes)</td>
</tr>
</tbody>
</table>

#### Mark(s) and Content

- **1 or 2 marks**
- **E2.5**

#### The Examiner explains

- **Valid process** means any method that is complete and correct.
- **1 mark** is awarded for showing a valid process with no answer/decision OR a valid process with an incorrect answer/decision.
- The correct number of minutes AND a correct decision must be shown to award 2 marks.
- Award 2 marks for:
  - No process shown, correct answer/decision OR
  - Valid process, correct answer/decision OR
  - Invalid process, correct answer/decision
Liv drives 9 km between home and work 8 times a week.

She works out how far she drives in a week.

\[ 8 \times 9 = \square \]

Complete the calculation. \( (1) \)

Show your answer in the box below.

\[ 8 \times 9 = \underline{\hspace{3cm}} \text{ km} \]

The Examiner explains
If the answer is clearly given, accept even if it is not in the answer box

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>72 (km)</td>
<td>1</td>
<td>E2.6</td>
</tr>
</tbody>
</table>

The Examiner explains
Information in brackets is optional; it is not required to award marks
At work Liv puts apple pies into boxes.

Liv has 42 apple pies.

Each full box has 9 apple pies.

**How many full boxes of apple pies does Liv have?**

**Show how many apple pies are left over.**

Show your working and your answers in the box below.

___________ full boxes

___________ apple pies left over

The Examiner explains
If the answer is clearly given, accept even if it is not in the answer box.
### The Examiner explains

<table>
<thead>
<tr>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
</table>
| 1 or 2 or 3 | Award 1 mark for  
A valid process with no number of full boxes or apple pies left over given  
OR  
A valid process with incorrect number of full boxes or apple pies left over given |
| 4 | Valid process to find the number of full boxes e.g.  
42 ÷ 9  
4 (full boxes) OR  
6 (apple pies left over)  
4 (full boxes) AND  
6 (apple pies left over)  
Accept only if 4 is clearly the number of full boxes and 6 is the remainder |
| 2 or E2.8 | Award 2 marks for indicating correct number of full boxes OR apple pies left over |
| 3 | Award 3 marks for  
No process shown with correct number of full boxes AND apple pies left over given  
OR  
Valid process with correct number of full boxes AND apple pies left over given  
OR  
Invalid process, correct number of full boxes AND apple pies left over given  
OR  
Invalid process  
Accept any correct process, correct number of full boxes AND apple pies left over given  
OR  
Accept any invalid process with correct number of full boxes AND apple pies left over given  
OR  
Accept any correct process with incorrect number of full boxes AND apple pies left over given |
Pearson Edexcel Functional Skills – Entry 2

Mathematics
Entry 2
Section B – Calculator

Sample Entry 2 controlled assessment materials for first teaching September 2019

Time: 65 minutes

Candidate name

Candidate signature

Date

You must have a
• black or blue ink pen
• pencil
• ruler
• rubber
• calculator.

Instructions
• Answer every question.
• You can write or draw to show your answers.
• You may use a calculator.

Information
• The total number of marks for this section is 21.

Advice
• Read each question carefully.
• Check your work at the end.
• Ask if you do not understand any words.

The Examiner explains
Each paper opens with the same familiar layout
Including
• Equipment required
• Instructions candidates must follow
• Information about the marks
• Supportive advice on technique
All candidates should be made aware of this information before they start
1  Alex wants to buy a car.

He has a plan of his house and driveway.

![Diagram of house and driveway]

Alex wants the longest car that fits his driveway.

<table>
<thead>
<tr>
<th>Length of cars for sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>car</td>
</tr>
<tr>
<td>length (m)</td>
</tr>
</tbody>
</table>

Which car will Alex choose?

Show your answer in the box below.

The Examiner explains If the answer is clearly given, accept even if it is not in the answer box.

The Examiner explains The candidate needs to extract information from a table.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indicates (car) E OR 4.4 (m) and no other</td>
<td>1</td>
<td>E2.22</td>
</tr>
</tbody>
</table>

The Examiner explains
Accept any clear indication, for example:
- tick
- cross
- underline
- circling
- highlighting

The Examiner explains
References the subject content within the E2 specification
The chart shows the costs of petrol from different companies.

**How much more does petrol cost from company B than company D?**

Show your answer in the box below.

<table>
<thead>
<tr>
<th>Cost (pence for each litre)</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>B</td>
</tr>
<tr>
<td>120</td>
<td>B</td>
</tr>
<tr>
<td>115</td>
<td>C</td>
</tr>
<tr>
<td>110</td>
<td>C</td>
</tr>
<tr>
<td>105</td>
<td>D</td>
</tr>
<tr>
<td>100</td>
<td>D</td>
</tr>
</tbody>
</table>

_________ pence for each litre

The Examiner explains
The candidate needs to read the scale on the bar chart correctly and make a comparison.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5 (pence for each litre)</td>
<td>1</td>
<td>E2.23</td>
</tr>
</tbody>
</table>

The Examiner explains
Information in brackets is optional; it is not required to award marks
3 Alex has a full tank of petrol on Monday.

The diagram shows his petrol gauge on Friday.

What fraction of the petrol is left?

Show your answer in the box below.

The Examiner explains
The candidate needs to recognise simple fractions
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>$\frac{1}{4}$</td>
<td>1</td>
<td>E2.10</td>
</tr>
</tbody>
</table>

Accept in words, e.g. one quarter

The Examiner explains
Accept any understandable spelling
4 Alex needs to buy petrol.

He goes to the nearest service station that is open.

**Which service station does he choose?**

Tick (✓) the correct answer.

- distance 7 km closed
- distance 19 km open
- distance 23 km closed
- distance 17 km open
- distance 22 km open
- distance 15 km closed

The Examiner explains: The candidate needs to sort and classify objects using two criteria.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Indicates (the service station) 17 (km away) and no other</td>
<td>1</td>
<td>E2.24</td>
</tr>
</tbody>
</table>

**The Examiner explains**
Accept any clear indication, for example:
- tick
- cross
- underline
- circling
- highlighting
5 Alex and his friend go to a concert by car.

The 2 friends share the cost equally.

The cost of the journey is £36

How much money does each of them pay?

Use the correct symbol for money.

Show your working and your answer in the box below.

The Examiner explains
The candidate needs to divide a two-digit whole number

The Examiner explains
The candidate needs to calculate money and write with the correct symbol

The Examiner explains
Candidates can use more than one method to work out their answer. Any appropriate method is valid
6 a) Round 36 to the nearest 10

Show your answer in the box below.

The Examiner explains
The candidate needs to approximate by rounding

b) Use the rounded number to check your answer to question 5

Show your check in the box below.

The Examiner explains
The candidate needs to use their rounded answer to check results

The Examiner explains
The number must be correctly rounded to gain this mark

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Valid process to find each friend's share e.g. 36 ÷ 2 (£)18</td>
<td>1 or 2</td>
<td>E2.8 E2.8</td>
</tr>
<tr>
<td></td>
<td>Correct use of £ symbol with their value</td>
<td>1</td>
<td>E2.12</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Mark(s)</td>
<td>Content</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>6a</td>
<td>40</td>
<td></td>
<td>E2.9</td>
</tr>
<tr>
<td>6b</td>
<td>Correct answer from the check, i.e. $(40 \div 2 =) 20$</td>
<td>1</td>
<td>E2.9</td>
</tr>
<tr>
<td></td>
<td>Accept $(40 \div 18 =) 2.2$...</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Award this mark for a correct answer based on an incorrect rounding of 36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The Examiner explains**
A reverse calculation using a rounded figure is expected here.

**The Examiner explains**
Information in brackets is optional; it is not required to award marks.
7 Alex needs to buy car wax.

```
Price list

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbo jet washer</td>
<td>£55</td>
</tr>
<tr>
<td>Solo car wax</td>
<td>£32</td>
</tr>
<tr>
<td>Quix car wax</td>
<td>£26</td>
</tr>
<tr>
<td>Kleano screen wash</td>
<td>£21</td>
</tr>
<tr>
<td>Auto car wax</td>
<td>£19</td>
</tr>
<tr>
<td>Handy brush</td>
<td>£13</td>
</tr>
<tr>
<td>Maxon wheel cleaner</td>
<td>£11</td>
</tr>
</tbody>
</table>
```

Alex has £25 to spend.

**Which car wax can Alex buy?**

Show your answer in the box below.

The Examiner explains

The candidate needs to read the question carefully to ensure they extract the correct information from the list.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Indicates Auto (car wax) OR £19 and no other</td>
<td>1</td>
<td>E2.22</td>
</tr>
</tbody>
</table>

**The Examiner explains**

Accept any clear indication, for example:
- tick
- cross
- underline
- circling
- highlighting
8  This is the shape of a can of cleaning spray.

What is the name of this shape?

Show your answer in the box below.

The Examiner explains
The candidate needs to recognise and name the 3-D shape.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>cylinder</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Accept any reasonable spelling</td>
<td></td>
</tr>
</tbody>
</table>

**The Examiner explains**
Accept any understandable spelling
9 Alex makes a mixture of screen wash and water. He pours screen wash into a measuring jug.

Alex will add 80 ml of water to the jug.

How much mixture will he have to the nearest division?

Use the correct unit for capacity.

Show your answer in the box below.

The Examiner explains
Correct units for capacity need to be shown

The Examiner explains
The candidate needs to read the question carefully to ensure they add the amount of screen wash in the jug and the given amount of water and give the total amount of mixture Alex will have.
The Examiner explains
If the candidate reads the scale on the jug to the nearest labelled division OR shows incorrect total within the given tolerance they achieve 1 mark. Units of measurement are not required.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
</table>
| 9        | Indicates 40 (ml)  
Accept written answers from 36 (ml) and less than 40 (ml)  
OR  
written answers from 116 (ml) and less than 120 (ml)  
Indicates 120 (ml)  
Correct use of units i.e. ml or millilitres with their value | 1 or 2 | 1 | E2.18  
E2.18  
E2.16 |

The Examiner explains
Award this mark if the candidate has given an incorrect answer but has shown correct use of units.

The Examiner explains
Award 2 marks if they have totalled the mixture to the nearest labelled division correctly. Units of measurement are not required.
10 Alex looks at the water temperature gauge in his car.

The normal water temperature is 79°C.

**How much hotter is the water than normal?**

Show your working and your answer in the box below.

The Examiner explains
Candidates need to read and compare temperature

_______ °C
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Valid process to compare the temperatures, e.g. 98 – 79 19 (°C)</td>
<td>1 or 2</td>
<td>E2.17 E2.17</td>
</tr>
</tbody>
</table>

**The Examiner explains**

Candidates can use more than one method to work out their answer. Any appropriate method is valid.

**The Examiner explains**

Information in brackets is optional; it is not required to award marks.

**The Examiner explains**

Award 1 mark for:
- A valid process shown with no answer given
- A valid process with an incorrect answer given

Award 2 marks for:
- No process shown, correct answer given
- A valid process and correct answer given
- An invalid process with a correct answer
The results of a survey show how people get to work.

<table>
<thead>
<tr>
<th>How people get to work</th>
<th>Number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>bike</td>
<td>12</td>
</tr>
<tr>
<td>bus</td>
<td>15</td>
</tr>
<tr>
<td>walk</td>
<td>6</td>
</tr>
<tr>
<td>car</td>
<td>23</td>
</tr>
</tbody>
</table>

Alex needs a bar chart of the survey results.

Show how many people get to work by car on the chart.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Draws a correct bar to show 23 people who use a car.</td>
<td>1</td>
<td>E2.25</td>
</tr>
<tr>
<td></td>
<td>Accept a clear point or line indicating the correct value in the correct position (above the category label for car)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Alex parks his car at the company where he works.

These are the parking spaces.

The company needs 57 parking spaces.

Are there enough parking spaces?

Show why you think this.

Show your answer in the box below.

Tick (✓) the correct answer.

Yes ( )  No ( )
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>No AND 53 (parking spaces) OR No AND 4 (parking spaces)</td>
<td>1</td>
<td>E2.1</td>
</tr>
</tbody>
</table>

**The Examiner explains**

The correct number parking spaces AND A correct decision must be shown to award 1 mark
13 A row of parking spaces has odd numbers.

23 25 27

What is the next odd number? (1)

Show your answer in the box below.

The Examiner explains
The candidate needs to sequence odd numbers

The Examiner explains
If the answer is clearly given, accept even if it is not in the answer box

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>29</td>
<td>1</td>
<td>E2.3</td>
</tr>
</tbody>
</table>
Alex needs his car repaired.

He wants his car repaired between the 30\textsuperscript{th} August and the 10\textsuperscript{th} September.

The garage gives Alex dates when they can repair his car.

**Which date will Alex choose?**

Tick (√) the correct answer.

Dates when the garage can repair the car

- 09/08/2019
- 18/09/2019
- 08/09/2019
- 19/08/2019

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Indicates 08/09/2019 and no other</td>
<td>1</td>
<td>E2.13</td>
</tr>
</tbody>
</table>

The Examiner explains
Accept any clear indication, for example:
- tick
- cross
- underline
- circling
- highlighting
15 Alex takes his car to a garage.

He has a street map.

The garage is on the left between a supermarket and a bank.

Show where the garage is on the map.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Mark(s)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Indicates on the left between the supermarket and the bank and no other</td>
<td>1</td>
<td>E2.21</td>
</tr>
</tbody>
</table>

**The Examiner explains**
Accept any clear indication, for example:
- tick
- cross
- underline
- circling
- highlighting