

The best mince pies – Functional Maths tasks

Name _____ Date _____

Adapted from: <https://www.theguardian.com/business/2019/nov/21/supermarket-luxury-mince-pies-ranked>
and <https://www.which.co.uk/news/2019/11/ms-has-the-best-mince-pies-for-christmas-2019/>

Which? reveals its pick of the best supermarket mince pies Panel blind-tests 11 premium mince pies – and picks M&S as the favourites



Pastry, mincemeat and overall 'attractiveness' were all aspects upon which stores' pies were judged.

This year's best mince pies are from Marks & Spencer, according to baking experts at Which?.

The panel blind-tested 11 supermarket premium mince pies to uncover the most delicious, as well as the blandest, wettest and least appetising.

The best buy went to M&S Collection Mince Pies, priced at £2.50 for six and scoring 87% in the taste test. Which? experts said they had a "quintessentially Christmassy aroma", praising the "golden, buttery pastry" and the "boozy, fruity mincemeat" and describing them as attractive-looking pies.

Steer clear of Spar, whose luxury pies were judged by Which? to be bland and under-baked, while the "overly sweet" filling was too wet and lacked spice.

Iceland Luxury Mince Pies (£1.89) and Asda Extra Special All Butter Luxury Mince Pies (£1.50) were the runners up, scoring 73% apiece.

Iceland and Asda were the much cheaper joint runners-up, Iceland, perhaps better-known for its prawn rings and value-for-money frozen burgers, was a surprise runner-up. The tasters liked the star decoration, which partly exposed the "juicy" mincemeat underneath, but some experts said the filling lacked spice. Iceland Luxury Mince Pies sell for £1.89 for a packet of six – 25% cheaper than the M&S equivalent.

The other budget option that scored well were Asda's Extra Special All-Butter Luxury Mince Pies – at £1.50 a box, one of the cheapest in the test – which impressed with its "moist, well-flavoured" mincemeat, although the pastry was found to be pale and a little dry.

Waitrose's pies were jointly the most expensive with M&S but were the biggest let down. Which? said its No 1 All-Butter Mince Pies (£2.50 for six) looked appetising but the mincemeat disappointed, with one expert describing it as claggy.

Taste test – winners and losers

1. M&S Collection Mince Pies £2.50
2. Iceland Luxury Mince Pies £1.89
3. Asda Extra Special All Butter Luxury Mince Pies £1.50
4. Waitrose No. 1 All Butter Mince Pies £2.50
5. Aldi Specially Selected Mince Pies £1.35
6. Tesco Finest Mince Pies £1.75
7. Sainsbury's Taste the Difference All Butter Mince Pies £2
8. Lidl Deluxe Luxury Mince Pies £1.79
9. Co-op Irresistible Luxury Mince Pies £2
10. Morrisons The Best All Butter Deep Filled Mince Pies £2
11. Spar Luxury All Butter Mince Pies £2



Tesco's offering came in fifth place.

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Name _____ Date _____



1. Write your answers on the lines.

a. How much are the Lidl mince pies?

(E1.11 - 1 mark)

b. How many brands of mince pie were tested?

(E2.22 - 1 mark)

c. Which brand of mince pie is the cheapest?

(E3.8, 3.10 - 1 mark)

d. Which brands are the most expensive?

(E3.8, 3.10 - 1 mark)

2. All the mince pies come in packs of six. You buy one pack of each type of mince pie.

How many mince pies do you buy?

Show your working out and your answer in the box.

(E2.6 - 2 marks)

3. Complete columns D and E in the table below.

A	B	C	D	E
Position	Brand	Price (box of 6)	Price - rounded to nearest 10p	Price - rounded to nearest £1.
1	M&S	£2.50		
2	Iceland	£1.89		
	Asda	£1.50		
3	Waitrose	£2.50		
4	Aldi	£1.35		
5	Tesco	£1.75		
6	Sainsbury's	£2.00		
7	Lidl	£1.79		
8	Co-op	£2.00		
9	Morrisons	£2.00		
10	Spar	£2.00		

(E3.5, 3.11 – 10 marks)

The best mince pies – Functional Maths

Name _____ Date _____



4. Use your answers in column E to answer this question.

You buy one pack of each brand of mince pie. **Estimate** the total cost.

Show your working out and your answer in the box.

(E1.3, E2.12 - 2 marks)



5. Now calculate the exact cost of buying all eleven packs.

Before you start, think about the most sensible way of adding up all the prices.

Explain this here: _____

_____ (E3.10 - 1 mark)

Show your working out and your answer in the box.

(E3.10 - 2 marks)

6. Compare and comment on your answers to Q4 and Q5.

_____ (E3/L1 - 2 marks)



7. You buy these mince pies: 1 pack of M&S, 3 packs of Iceland and 2 packs of Asda.

What is the total cost? Show your working out and your answer in the box.

(E3.10 - 3 marks)

The best mince pies – Functional Maths

Name _____ Date _____

8. In the text, Tesco is number 6 in the taste test list but a caption in the text states: “Tesco’s offering came in fifth place.” Comment on this.

_____ (E3 – 1 mark)



9. Calculate the price of **one** Asda mince pie.
Show your working out and your answer in the box.

(E3.3, 3.10 - 3 marks)



10. Calculate the price of **one** Waitrose mince pie (to the nearest penny).
Show your working out and your answer in the box.

(L1.11 - 2 marks)

11. Iceland and Asda mince pies both scored 73% in the taste test. M&S scored 87%.
a. Write 87% as a fraction and a decimal.

(L1.16 - 2 marks)

- b. Tick one answer.

73% is approximately the same as: $\frac{3}{4}$ $\frac{7}{3}$ $\frac{3}{7}$ $\frac{1}{10}$

(L1.16 - 1 mark)

The best mince pies – Functional Maths


Name _____ Date _____

-  **12. “Iceland Luxury Mince Pies sell for £1.89 for a packet of six – 25% cheaper than the M&S equivalent.”**

Check this statement and comment on its accuracy.


Show your working out and your comment in the box.

(L1.14 - 4 marks)

-  **13. Calculate the range of prices for packs of mince pies.**


Show your working out and your answer in the box.

(L1.29 - 2 marks)

-  **14. Calculate the mean price of a pack of mince pies. Round your answer sensibly.**

Show your working out and your answer in the box.

(L1.29 - 3 marks)

-  **15. Work out the modal price and the median price of a pack of mince pies.**

Show your working out and your **two** answers in the box.

(L2.23, 2.25 - 4 marks)

- 16. Compare and comment on** the three averages you calculated in Q14 and Q15.

(L2.25 - 2 marks)

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Teaching notes



Background

Sparked after reading an article in The Guardian newspaper, and made in haste, this resource is aimed at Entry Level 3 (E3) and Level 1 (L1) learners but includes some E1-2 and L2 questions. There is no answer sheet – one *might* appear later for skillsworkshop contributors – but see below for general marking guidance.

Purpose

The resource is not intended to emulate formal summative assessment papers. Some questions are purposely challenging and open ended: designed to develop problem solving skills, and a questioning or curious attitude to statistics used in the media.

Level

There is also no detailed mapping page. However, most questions include relevant content descriptors in a grey font, along with suggested marks. E.g. Q3, *E3.11 = Round amounts of money to the nearest 10p or £1*. For full details of Reformed Functional Skills content, please refer to: <https://www.gov.uk/government/publications/functional-skills-subject-content-mathematics>

Questions are generally arranged by level, starting with E1 and finishing at L2. E3 learners could stop after Q9 but may want to continue. L1 and L2 learners should also start Q1 as some later questions rely on answers or information from earlier ones.

Marking guidance

Where there is more than one mark available, award one mark for the correct answer and reserve the other(s) for showing the correct process (working out) or for gathering the data to work with. For some questions allowing follow-through might be appropriate (e.g. Q14 if the learner got the answer to Q5 wrong). For Q3 I've allowed a maximum of 5 marks per column (rather than 11) because several prices occur more than once. **Maximum possible marks = 50.**

Calculator use

The calculator and non-calculator symbols are self-explanatory and should be observed if the learner is to get the most out of the resource. If a question has no symbol then a calculator is not forbidden but will probably not be any help!

My hope is that the questions prompt whole class (or small group) discussion. For example, the resource could be used to elicit seasonal discussion about:

- Using rounding to quickly estimate the total cost of a list of items.
- Comparing rounded totals to exact totals.
- Strategies for adding up a long list of numbers or prices. E.g. in Q5, add up all the £2.00s first.
- How statistics are used in newspaper articles and other everyday media.
- Do different averages (mean, mode, median) give different results? Why? Which one gives the most meaningful or useful result?
- Learners' favourite brand of mince pies (or mince pie recipes)!

An accompanying Functional English resource, using the same text, will be available shortly.

Happy Christmas!
Maggie Harnew, Nov 22nd 2019