

C. Level 2 extension challenge (9 marks)

Last year, Mona spent:

- 30% of her salary on rent
- $\frac{2}{5}$ of her salary on entertainment
- $\frac{1}{4}$ of her salary on living expenses
- She saved the rest of her salary



She spent £3,600 on living expenses.

How much money did Mona save? You **must** show your working out.

Savings: _____

Functional Maths practice questions

Answers and curriculum mapping



Question A

YOU CAN ONLY GAIN THE MARKS IF YOU HAVE SHOWN THE WORK CLEARLY!

Tesco

- 1 mark: $12 \times 50p = \text{£}6$
1 mark: $30\% \text{ of } \text{£}6 = \text{£}1.80$
1 mark: $\text{£}6 - \text{£}1.80 = \text{£}4.20$

Premier

- 1 mark: 'Buy 3 get 1 free' = buy 12 tins but only pay for **9 tins**

OR

25% off / only pay 75% (or similar)

- 2 marks: $9 \times 48p = \text{£}4.32$

OR

$12 \times 48p = \text{£}5.76$, $\text{£}5.76 \times 0.75 = \text{£}4.32$

Comparison:

- 1 mark: Showing that $\text{£}4.20$ (Tesco) $<$ $\text{£}4.32$ (Premier)

Answer box:

- 1 mark: Supermarket: **Tesco**

Question B

YOU CAN ONLY GAIN THE MARKS IF YOU HAVE SHOWN THE WORK CLEARLY!

Amazon

- 1 mark: $30\% \text{ of } \text{£}390 = \text{£}117$
1 mark: $\text{£}390 - \text{£}117 = \text{£}273$

Apple Store

- 1 mark: $1/3 \text{ of } \text{£}405 = \text{£}135$
1 mark: $\text{£}405 - \text{£}135 = \text{£}270$

Comparison:

- 1 mark: Show $\text{£}273$ (Amazon) $>$ $\text{£}270$ (Apple)

Answer box:

- 1 mark: **Apple**

Question C

YOU CAN ONLY GAIN THE MARKS IF YOU HAVE SHOWN THE WORK CLEARLY!

Finding total salary:

- 2 marks: $\frac{1}{4} = \text{£}3,600$
 $\text{£}3,600 \times 4 = \text{£}14,400$
(If wrong total found, dock one mark but use new total for remaining calculations)

Spending:

- 2 marks: $30\% \text{ of } \text{£}14,400 \rightarrow 10\% = \text{£}1,440$
 $30\% = 3 \times \text{£}1,440 = \text{£}4,320$

- 2 marks: $2/5 \text{ of } \text{£}14,400 \rightarrow 1/5 = \text{£}2,880$
 $2/5 = \text{£}5,760$

Finding savings:

- 2 marks: $\text{£}4,320 + \text{£}5,760 + \text{£}3,600 = \text{£}13,680$
 $\text{£}14,400 - \text{£}13,680 = \text{£}720$

Answer box:

- 1 mark: **£720**

FUNCTIONAL MATHEMATICS Coverage and Range statements (indicative only)

Coverage and range statements provide an indication of the type of mathematical content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent National Curriculum levels and the Adult Numeracy standards. ✓ indicates the main coverage and range skills covered in this resource, although these may vary with the student group and how the resource is used by the teacher.

Reference: Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.*

<https://www.gov.uk/government/publications/functional-skills-criteria-for-mathematics>

Level 1

- | | |
|---|---|
| <ul style="list-style-type: none"> a) Understand and use whole numbers and understand negative nos. in practical contexts ✓ b) Add, subtract, multiply and divide whole numbers using a range of strategies ✓ c) Understand and use equivalences between common fractions, decimals and percentages ✓ d) Add and subtract decimals up to 2 decimal places ✓ e) Solve simple problems involving ratio, where one number is a multiple of the other f) Use simple formulae expressed in words for one- or two-step operations ✓ | <ul style="list-style-type: none"> g) Solve problems requiring calculation, with common measures, including money, time, length, weight, capacity and temperature ✓ h) Convert units of measure in the same system i) Work out areas and perimeters in practical situations j) Construct geometric diagrams, models and shapes k) Extract and interpret information from tables, diagrams, charts and graphs l) Collect and record discrete data and organise and represent information in different ways m) Find mean and range n) Use data to assess the likelihood of an outcome |
|---|---|

Level 2

- | | |
|---|---|
| <ul style="list-style-type: none"> a) understand and use positive and negative numbers of any size in practical contexts b) carry out calculations with numbers of any size in practical contexts, to a given number of decimal places ✓ c) understand, use and calculate ratio and proportion, including problems involving scale d) understand and use equivalences between fractions, decimals and percentages ✓ e) understand and use simple formulae and equations involving one or two operations f) recognise and use 2D representations of 3D objects | <ul style="list-style-type: none"> g) find area, perimeter and volume of common shapes h) use, convert and calculate using metric and, where appropriate, imperial measures i) collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate j) use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate. k) use statistical methods to investigate situations l) use probability to assess the likelihood of an outcome |
|---|---|

This resource also covers many **adult numeracy curriculum** elements. <http://www.excellencegateway.org.uk/content/etf1075>