Help John Golt: expenses claim

Name _____ Date _____

Mr John Golt works as a recruitment consultant for the nursing recruitment agency Tina Ltd.

On the third week of each month, John submits his expenses to the payroll department. John has asked you to help him work out the total expenses for December, as well as the number of miles he travelled on his journey to and from Oxford for the presentation with Oxford University Hospital.

After submitting his claim for December on 21 December, John was told that his average monthly expenses claim during 2012 was 25% more than the claim for December. John has asked you to show him how he can calculate his average monthly expenses for the year.

Expenses claim form December 2012 - Mr John Golt			
Date	**Client**	**Detail of expense**	**Cost**
03/12/2012	Chelsea and Westminster Hospital	Train journey to meeting in London and return to office	£ 8.80
03/12/2012	Chelsea and Westminster Hospital	Lunch with client	£16.63
10/12/2012	Oxford University Hospital	Mileage to and from presentation in Oxford	£24.50
15/12/2012	Croydon University Hospital	Train journey to and form client's offices	£12.45
17/12/2012	Croydon University Hospital	Breakfast meeting	£17.40
		Total expenses	
mileage paid at £0.35 per mile for the first 1000 miles each year, £0.25 thereafter			

1. Work out John's **total expense** claim for December 2012.

2. What **percentage his total expense claim** (for December 2012) was for **train journeys**?

3. Work out **how many miles** John travelled on his **journey to and from Oxford** for the presentation with Oxford University Hospital.

4. John's **average monthly expenses** claim during 2012 was **25% more** than the claim for December. Work out how much his **average monthly claim** was.

You must show all your working out – even if you use a calculator.

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.*

Level 1

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
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

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
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

References

Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.* http://www.ofqual.gov.uk/ This resource also covers many **adult numeracy curriculum** elements.
http://www.excellencegateway.org.uk/sflcurriculum including
HD1/L1.1: Extract and interpret information, e.g. tables, diagrams, charts, simple line graphs.
HD1/L2.1: Extract and interpret discrete and continuous data from tables, diagrams, charts and line graphs
N2/L1.10: Find simple percentage increases and decreases
N2/L2.9: Evaluate one number as a percentage of another
N2/L1.11, (N2/L2.10): Solve problems with or without a calculator (efficiently) using whole numbers, fractions, decimals and percentages

For related resources and further curriculum links please visit the download page for this resource at www.skillsworkshop.org

Answer Sheet

1	**£ 79.78**	3	**70 miles**
2	**27%**	4	**£ 99.73**