FUNCTIONAL SKILLS MATHEMATICS

AQA | Edexcel | City & Guilds | Open Awards | NCFE | Highfield

Level 2

Problems Involving Money

Materials
- You **cannot** use a calculator for **questions** with this symbol.

Instructions
- Answer **all** questions.
- Answer questions on separate paper.

Information and Advice
- The marks for each question are shown in brackets – use this as a guide on how long to spend on each question.
- Read each question carefully before you answer it.
- Check you answers.

Q1   Convert the following amounts of pounds into pence.

1(a)   £2.00

[1 mark]

1(b)   £1.29

[1 mark]

1(c)   £1.09

[1 mark]

1(d)   £0.24

[1 mark]

1(e)   £31.68

[1 mark]

1(f)   £9.50

[1 mark]

1(g)   £3.44

[1 mark]

1(h)   £1129.99

[1 mark]

1(i)   £12.87

[1 mark]

1(j)   £71.95

[1 mark]

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Turn over ►

Q2   Convert the following amounts of pence into pounds.

2(a)   54p

[1 mark]

2(b)   112p

[1 mark]

2(c)   99p

[1 mark]

2(d)   3p

[1 mark]

2(e)   3551p

[1 mark]

2(f)   66p

[1 mark]

2(g)   4000p

[1 mark]

2(h)   108p

[1 mark]

2(i)   236p

[1 mark]

2(j)   971p

[1 mark]

10

Turn over ►

Q3   Anthony earns £10.19 per hour. How much does it cost to employ him for:

3(a)   1 hour

[1 mark]

3(b)   6 hours

[2 marks]

3(c)   10 hours

[2 marks]

3(d)   3 hours

[2 marks]

3(e)   20 hours

[2 marks]

Q4   Sally has earned £5040 as an executive of her company. How many hours has Sally worked if her wage is:

4(a)   £20 per hour

[2 marks]

4(b)   £24 per hour

[2 marks]

4(c)   £28 per hour

[2 marks]

4(d)   £36 per hour

[2 marks]

Turn over ▶

Q5   Moira and Tim are both employed in the same job by the same company.

5(a)   Moira worked 9 hours on Friday and was paid £92.70. How much does she get paid per hour?

[2 marks]

5(b)   Moira suspects Tim is being paid more than her. She asks Tim how much he earned yesterday. He says "£65.40". Moira knows Tim worked a 6 hour shift yesterday. Is she correct that Tim is being paid more?

[2 marks]

5(c)   Later on, Moira and Tim have both had pay rises to £11.00 per hour. If Moira works 8 hours more than Tim this week, how much more will she earn than him?

[2 marks]

5(d)   At the end of the month, Moira got paid £1133.00. How many hours did she work that month?

[2 marks]

Q6   Hendrik buys a new phone on a pay as you go SIM. The charges are as follows:
2p per minute
5p per text

6(a)   Hendrik talks to his mother on his phone for 30 minutes. How much did this cost him?

[2 marks]

6(b)   Hendrik exchanges 45 texts with a friend. How much did this cost him?

[2 marks]

6(c)   At the end of the month, Hendrik has spent 450 minutes on the phone and has sent 200 texts. When he got his phone, he was offered a £20 per month contract. Was pay as you go cheaper than the contract for this month?

[4 marks]

Turn over ▶

Q7 Complete Logistical Solutions Ltd. has a number of expenses each month.
Staff – 200 on basic rate £10.49 per hour.
Staff – 50 on management rate £18.00 per hour.
Staff – 44 on HGV rate £22.00 per hour.
Staff – 5 on executive rate £4000 per month (salaried).
Staff – 1 on CEO rate £10000 per month (salaried).
Rent – 8 warehouses at £15000 per month each.
Equipment – 30 lorries to maintain at £500 per month each.
Equipment – Buying a new lorry every month at £35000.
Equipment – Other equipment totalling £3000 per month.
Catering - £2.10 per meal – every member of staff has a meal every shift.
Miscellaneous - £8000 per month.

7(a) How much does Complete Logistical Solutions Ltd. spend on rent each month?

[2 marks]

7(b) How much does Complete Logistical Solutions Ltd. spend on maintaining lorries each month?

[2 marks]

7(c) How much does Complete Logistical Solutions Ltd. spend on equipment in total each month?

[2 marks]

Assume from this point on that every member of staff works 20 shifts per month, and that each shift lasts $8\frac{1}{2}$ hours with a $\frac{1}{2}$ hour break (where breaks are not paid).

7(d) How many staff does Complete Logistical Solutions Ltd. have in total?

[2 marks]

7(e) How much does Complete Logistical Solutions Ltd. spend on catering each month?

[2 marks]

7(f) How much does Complete Logistical Solutions Ltd. spend on staff each month?

[4 marks]

7(g) How much does Complete Logistical Solutions Ltd. spend in total each month?

[2 marks]

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Turn over ►

Q8   Find the new prices once the increase has been applied.

8(a)   £100 increased by 10%

[2 marks]

8(b)   £200 increased by 40%

[2 marks]

8(c)   £50 increased by 20%

[2 marks]

8(d)   £28 increased by 25%

[2 marks]

8(e)   £25 increased by 8%

[2 marks]

8(f)   £35 increased by 60%

[2 marks]

8(g)   £36 increased by 17%

[2 marks]

8(h)   £150 increased by 99%

[2 marks]

8(i)   £447 increased by 112%

[2 marks]

8(j)   £95 increased by 54%

[2 marks]

Q9   Find the new prices once the discount has been applied.

9(a)   £100 discounted by 10%

[2 marks]

9(b)   £200 discounted by 30%

[2 marks]

9(c)   £90 discounted by 80%

[2 marks]

9(d)   £32 discounted by 75%

[2 marks]

9(e)   £75 discounted by 4%

[2 marks]

9(f)   £85 discounted by 60%

[2 marks]

9(g)   £57 discounted by 17%

[2 marks]

9(h)   £555 discounted by 89%

[2 marks]

9(i)   £47 discounted by 12%

[2 marks]

9(j)   £925 discounted by 54%

[2 marks]

Turn over ▶

Q10　A mathematics tuition company has records of its outgoings each year,
2019 - £335000
2020 - £450000
2021 - £610000

10(a)　If the company made 35% profit in 2019, how much profit did it make?

[1 mark]

10(b)　If the company made 83% profit in 2021, did it make more profit than the 2020 outgoings?

[2 marks]

10(c)　The company made 61% profit in 2020, which was split evenly between 3 major shareholders. How much did each shareholder get?

[2 marks]

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Turn over ▶

Q11   Find the percentage profit made in these investments.

11(a)   £40 profit on a £100 investment.

[2 marks]

11(b)   £14 profit on a £100 investment.

[2 marks]

11(c)   £37.50 profit on a £250 investment.

[2 marks]

11(d)   £7.20 profit on a £90 investment.

[2 marks]

11(e)   £126 profit on a £5040 investment.

[2 marks]

11(f)   £5.25 profit on a £75 investment.

[2 marks]

11(g)   £24 profit on a £768 investment.

[2 marks]

11(h)   £13.50 profit on a £9 investment.

[2 marks]

11(i)   £900 profit on a £10000 investment.

[2 marks]

11(j)   £216 profit on a £144 investment.

[2 marks]

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Q12   A company with several subsidiaries posts the profits for all of their subsidiaries:

Subsidiary	Initial Value	Profit
1	£10000	£2500
2	£20000	£500
3	£15000	£7500
4	£50000	£1000
5	£12000	£6720

12(a)   Find the percentage profit of each subsidiary.

[5 marks]

12(b)   Given that these five subsidiaries make up the whole company, find the percentage profit of the whole company to the nearest whole percent.

[3 marks]

Q13   Abigail has a stock portfolio. Over four years, the value of the portfolio increased from £1000 to £1350.

13(a)   Calculate the percentage profit that Abigail has earned.

[3 marks]

13(b)   After two years, Abigail's portfolio was worth £900. Calculate the percentage loss over the first two years.

[3 marks]

13(c)   The portfolio rose from £900 to its current value of £1350 over the third and fourth year. Calculate the percentage profit over these two years.

[3 marks]

Q14   A shop sells a chocolate bar for 65p.

14(a)   From wholesalers, the chocolate bars cost £125 for 250 bars. How much percentage profit does the shop make if they sell 1000 bars?

[4 marks]

14(b)   If the shop instead sold 1000 bars for 70p each, what would the percentage profit be?

[3 marks]

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