



EXAM PAPERS PRACTICE

GCSE Edexcel Math
1MA1
Basic Percentages
Question Paper

*"We will help you to
achieve A Star "*



Question 1

Bill's weight decreases from 64.8 kg to 59.3 kg.

Calculate the percentage decrease in Bill's weight.
Give your answer correct to 3 significant figures.

[3 marks]

Question 2

Sasha takes a music exam.

The table shows the result that Sasha can get for different percentages in her music exam.

Percentage	Result
50% – 69%	Pass
70% – 84%	Merit
85% – 100%	Distinction

Sasha gets 62 out of 80 in her music exam.

What result does Sasha get?
You must show your working.

[3 marks]



Question 3

Karen got 32 out of 80 in a maths test.

She got 38% in an English test.

Karen wants to know if she got a higher percentage in maths or in English.

Did Karen get a higher percentage in maths or in English?

[2 marks]

Question 4

Tom is a ski jumper.

The maximum length of skis he can use is 145% of his height.

Tom's height is 1.80 m.

Work out the maximum length of skis Tom can use.

[3 marks]



Question 5

At time $t = 0$ hours a tank is full of water.

Water leaks from the tank.

At the end of every hour there is 2% less water in the tank than at the start of the hour.

The volume of water, in litres, in the tank at time t hours is V_t

Given that

$$\begin{aligned} V_0 &= 2000 \\ V_{t+1} &= kV_t \end{aligned}$$

write down the value of k .

[1 mark]

Question 6

Mr Mason asks 240 Year 11 students what they want to do next year.

15% of the students want to go to college.

$\frac{3}{4}$ of the students want to stay at school.

The rest of the students do not know.

Work out the number of students who do not know.

[4 marks]



Question 7

Ria is going to buy a caravan.

The total cost of the caravan is £7000 **plus** VAT at 20%.

Ria pays a deposit of £3000

She pays the rest of the total cost in 6 equal monthly payments.

Work out the amount of each monthly payment.

[4 marks]

Question 8

Celina and Zoe both sing in a band.

One evening the band plays for 80 minutes.

Celina sings for 65% of the 80 minutes.

Zoe sings for $\frac{5}{8}$ of the 80 minutes.

Celina sings for more minutes than Zoe sings.

Work out for how many more minutes.

You must show all your working.

[4 marks]



Question 9

George wants to watch all 23 games that a football team will play at home next season.

He can buy

- a season ticket costing £425
- or 23 separate tickets costing £24 each ticket.

What percentage of the total cost of 23 separate tickets does George save by buying a season ticket?

[3 marks]

Question 10

Emily buys a pack of 12 bottles of water.

The pack costs £5.64

Emily sells all 12 bottles for 50p each.

Work out Emily's percentage profit.

Give your answer correct to 1 decimal place.

[3 marks]



Question 11

Railtickets and Cheaptrains are two websites selling train tickets.

Each of the websites adds a credit card charge and a booking fee to the ticket price.

Railtickets

Credit card charge: 2.25% of ticket price

Booking fee: 80 pence

Cheaptrains

Credit card charge: 1.5% of ticket price

Booking fee: £1.90

Nadia wants to buy a train ticket.

The ticket price is £60 on each website.

Nadia will pay by credit card.

Will it be cheaper for Nadia to buy the train ticket from Railtickets or from Cheaptrains?

[4 marks]



Question 12

Greg sells car insurance and home insurance.

The table shows the cost of these insurances.

Insurance	car insurance	home insurance
Cost	£200	£350

Each month Greg earns

- £530 basic pay
- 5% of the cost of all the car insurance he sells
- and 10% of the cost of all the home insurance he sells

In May Greg sold

- 6 car insurances
- and 4 home insurances

Work out the total amount of money Greg earned in May.

[5 marks]



Question 13

Mr Brown and his 2 children are going to London by train.

An adult ticket costs £24

A child ticket costs £12

Mr Brown has a Family Railcard.

Family Railcard gives

$\frac{1}{3}$ off adult tickets

60% off child tickets

Work out the total cost of the tickets when Mr Brown uses his Family Railcard.

[4 marks]



Question 14

Sean wants to go on holiday.

He is going to get a loan of £720 to help pay for the holiday.

Sean will have to pay back the £720 plus interest of 15%.

He will pay this back in 12 equal monthly installments.

How much money will Sean pay back each month?

[4 marks]

Question 15

Bill buys and sells laptops.

Last month Bill bought 50 laptops.

He paid £400 for each laptop.

He sold

40 of these laptops at a profit of 30% on each laptop

10 of these laptops at a profit of 15% on each laptop

Bill's target last month was to sell all 50 laptops for a total of at least £25 000

Did Bill reach this target?

[5 marks]