EXAM PAPERS PRACTICE

GCSE OCR Math J560

Combining Arithmetic Operations

Question Paper

"We will help you to achieve A Star "

Question 1

Given that $1793 \times 185 = 331\,705$

write down the value of

(a) 1.793×185

[1 mark]

Question 2

Write down the reciprocal of 5

[1 mark]

Question 3

The paving slabs cost £8.63 each.

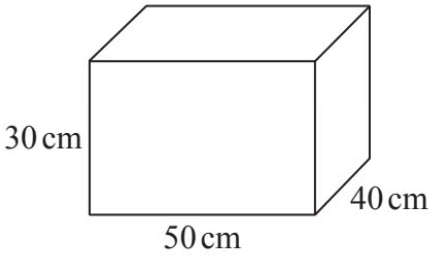
(b) Work out the total cost of the 32 paving slabs.

[3 marks]

Question 4

The diagram shows a container for oil.
The container is in the shape of a cuboid.
The container is empty.

Diagram **NOT** accurately drawn



Sally has to fill the container with oil.
A bottle of oil costs £3.50
There are 3000 cm^3 of oil in each bottle.

Sally must **not** spend more than £60 buying the oil.

Can Sally buy enough oil to fill the container?
You must show all your working.

[4 marks]

Question 5

One of the teachers at a school is chosen at random.

The probability that this teacher is female is $\frac{3}{5}$

There are 36 **male** teachers at the school.

Work out the total number of teachers at the school.

[3 marks]

Question 6

Work out 1.83×47

[3 marks]

Question 7

Work out 54.6×4.3

[3 marks]

Question 8

Work out 6.34×5.2

[3 marks]

Question 9

One sheet of paper is 9×10^{-3} cm thick.

Mark wants to put 500 sheets of paper into the paper tray of his printer.
The paper tray is 4 cm deep.

Is the paper tray deep enough for 500 sheets of paper?
You must explain your answer.

[3 marks]

Question 10

Using the information that

$$6.7 \times 52 = 348.4$$

find the value of

(i) 6.7×520

(ii) 67×0.52

(iii) $3484 \div 5.2$

[3 marks]

Question 11

The diagram shows a plan of Brian's lawn.

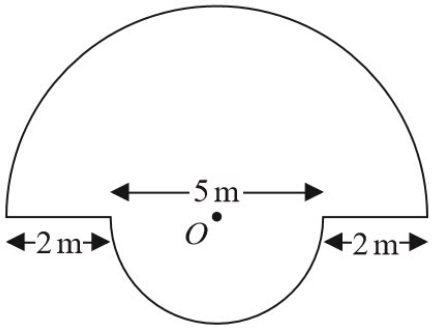


Diagram **NOT** accurately drawn

The edge of the lawn consists of two semicircles and two straight lines.
Each semicircle has centre O.
The diameters of the semicircles are 9 m and 5 m.

Brian is going to put lawn edging around the edge of the lawn.
Lawn edging is sold in 2.4 metre rolls.

Lawn edging

£3.99 per roll
or
3 rolls for £10

Brian has £35

Has Brian got enough money to buy all the rolls of lawn edging he needs?
You must show all your working.

[5 marks]

Question 12

Steve wants to put a hedge along one side of his garden.

He needs to buy 27 plants for the hedge.
Each plant costs £5.54

Steve has £150 to spend on plants for the hedge.

Does Steve have enough money to buy all the plants he needs?

[4 marks]

Question 13

Each day a company posts some small letters and some large letters.

The company posts all the letters by first class post.

The tables show information about the cost of sending a small letter by first class post and the cost of sending a large letter by first class post.

Small Letter

Weight	First Class Post
0–100 g	60p

Large Letter

Weight	First Class Post
0–100 g	£1.00
101–250 g	£1.50
251–500 g	£1.70
501–750 g	£2.50

One day the company wants to post 200 letters.

The ratio of the number of small letters to the number of large letters is 3 : 2

70% of the large letters weigh 0–100 g.

The rest of the large letters weigh 101–250 g.

Work out the total cost of posting the 200 letters by first class post.

[5 marks]

Question 14

Saphia is organising a conference.

People at the conference will sit at circular tables.

Diagram **NOT** accurately drawn

Each table has a diameter of 140 cm.
Each person needs 60 cm around the circumference of the table.

There are 12 of these tables in the conference room.
A total of 90 people will be at the conference.

Are there enough tables in the conference room?

[4 marks]

Question 15

Henry is thinking of having a water meter.

These are the two ways he can pay for the water he uses.

Water Meter

A charge of £28.20 per year

plus

91.22p for every cubic metre of water used

1 cubic metre = 1000 litres

No Water Meter

A charge of £107 per year

Henry uses an average of 180 litres of water each day.

Use this information to determine whether or not Henry should have a water meter.

[5 marks]