Your name:

HIGHGATE

Mathematics

Sample 11+ Paper A

You should read each question very carefully before attempting to answer it. Remember to show clearly all your working.

You should write your answers in the boxes given.

If you cannot answer part of a question, you should move onto the next part. However, you must NOT turn to the next page until you are told to do so.

If you have finished a question you should spend any spare time checking your answers on that page: you will not be allowed to go back to that question later.

Do not worry if you find part of a question difficult: miss it out and try the next one.

The exam will last for approximately 45 minutes.

Question 1

Remember to include your working to show us how you find your answers.

The following questions are about a butcher's shop.

a) Karim buys 7 burgers and 5 steaks.
Burgers cost 61p each and steaks cost 84p each.

How much did Karim spend in total?

Karim spends £ ____

b) Sausages come in packs of 8. Each pack costs £1.30

James spends £9.10 on sausages. How many sausages did James get?

James gets ____ sausages.

c) Tyler buys 16 chicken wings, and receives £14.72 change from a £20 note.

What is the price of a chicken wing?

One chicken wing costs ____ pence

d) The butcher also sells slices of turkey.

Donald buys three quarters of the slices in the shop. Alisha then buys a sixth of the remaining slices.

Alisha bought 3 slices. How many more slices than Alisha did Donald buy?

Donald bought ☐ more slices of turkey than Alisha.

e) Lamb chops are three times more expensive than pork chops.

Tina buys 2 lamb chops and 2 pork chops. She spends £9.60 in total.

How much do lamb chops and pork chops cost?

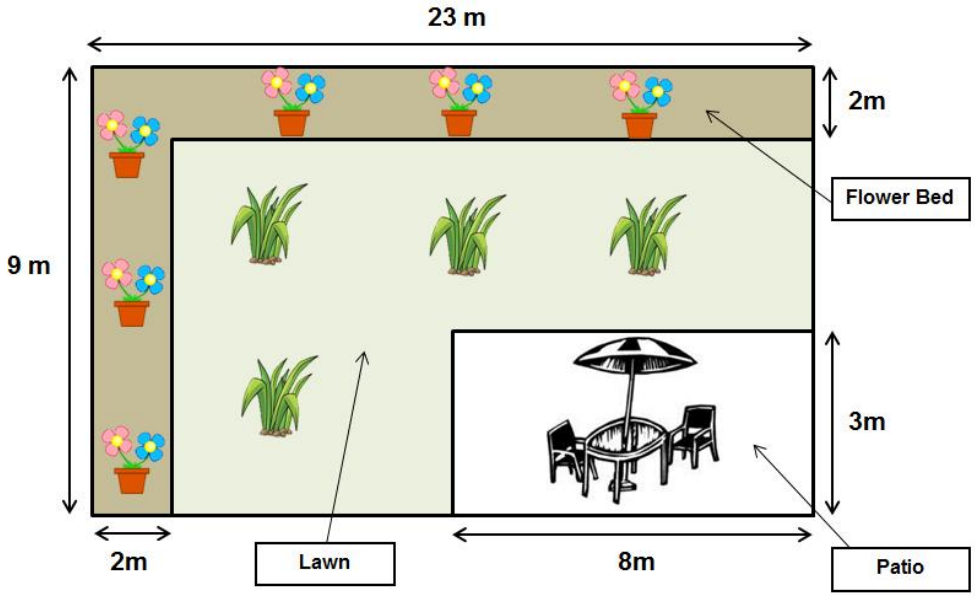
A lamb chop costs £ ☐ , a pork chop costs £ ☐

WAIT: do NOT turn over until you are told to do so.
If you have time, check your answers on this page.

Question 2

Remember to include your working to show us how you find your answers.

Mr Green's garden is a mixture of lawn, patio and flower beds. A plan of the garden is shown below, with some (but not all) of the measurements.
The picture is <u>not drawn to scale</u>.



a) What is the area covered by Mr Green's lawn?

The area of the lawn is ____ m^2

b) Mr Green buys 6 flower pots. Flower pots cost £4.00 each.
Mr Green has a voucher for *"15% off"*.
How much does Mr Green spend on flower pots if he uses the voucher?

Mr Green spends £ ____

c) Mr Green wants to lay paving stones on his patio.
The stones are rectangles measuring 50 cm x 20 cm.

How many paving stones are needed to pave the patio?

The number of paving stones needed is ____

d) The area of the flower bed is 60m^2.

Three sacks of fertilizer are needed for every 4m^2 of flower bed.

Sacks cost £10 each, but are on offer:
"buy four sacks and get a fifth sack free".

How much does it cost to fertilize the flower bed?

WAIT: do NOT turn over until you are told to do so.
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The total cost is £ ____

Question 3

a) Tim is going paintballing. Entry into paintballing costs £23, but then you also have to pay £6 per 100 paintballs that you use.

Tim spent £65 in total. How many paintballs did he use?

Tim uses ____ paintballs

b) Janice is running a bath. She mixes hot water with cold water to make sure the temperature is just right.

She uses 5 times more hot water than cold water. Janice's bath holds 90 litres of water in total. How much hot water does she use?

Janice uses ____ litres of hot water

c) Bob the Builder is filling a hole with a mixture of gravel and sand.

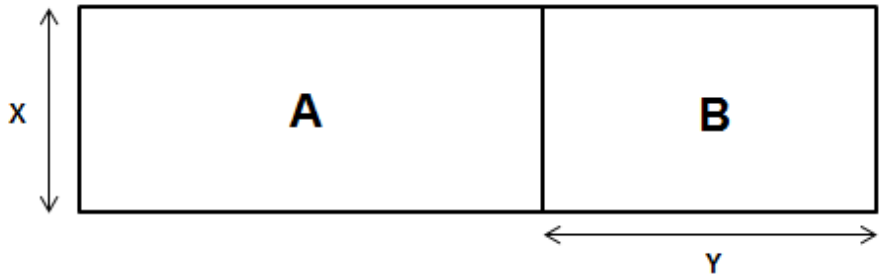
234kg of sand are needed to make 400kg of the mixture.

Bob makes 1000kg of the mixture.

How much **gravel** does Bob need?

kg

d) In the picture below, rectangle A has an area of 70cm^2, and rectangle B has an area of 63cm^2. The side lengths of the rectangles are whole numbers.
The sides labelled X and Y are both longer than 1cm.



Find the lengths of the sides labelled X and Y.

X is ____ cm, and Y is ____ cm

e) Victoria the vet is weighing her pets.
Her rabbit and her cat together weigh 10kg.
Her cat and her dog together weigh 24kg.
Her dog and her rabbit together weigh 20kg.

How much do all 3 of her pets weigh when weighed together?

WAIT: do NOT turn over until you are told to do so.
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Together all 3 pets weigh | kg

Question 4

Remember to include your working to show us how you find your answers.

a) In the town of Mathsville there are 360 residents.
45% of the residents are children, the rest are adults.
How many adults are there in Mathsville?

adults

b) Numbertown Primary School has 280 pupils. 56 of these pupils are girls.
What percentage of the pupils are boys?

%

c) The price of a bus ticket from Mathsville to Numbertown has **increased** by 50% in the past year. A bus ticket now costs £1.80

What did it cost a year ago?

A bus ticket cost £ a year ago

d) Mathsville Maths Supplies is a shop selling maths equipment.

Tina bought 4 calculators and 3 protractors for £16.10
Ahmed bought 2 calculators and 1 protractor for £7.50

How much does a calculator cost, and how much does a protractor cost?

A calculator costs £ , a protractor costs £

e) Football is very popular in Numbertown.

Two fifths of the population support London Mathletic.
The rest support either Mathsville United or the Counting Crows.
Twice as many people support Mathsville United than support the Counting Crows.
500 people support the Counting Crows.

What is the total population of Numbertown?

WAIT: do NOT turn over until you are told to do so.
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The population of Numbertown is

End of test