H Highfield
Qualifications®

Level 1

Paper Code: FSQC108P

MOCK Highfield Functional Skills Qualification in Mathematics at Level 1

Information for centres and learners

- **Learners taking this examination must also complete papercode FSQN108P.**
- **Only remove the examination paper from the sealed envelope when instructed to do so.**
- **Under no circumstances should you use an unsealed examination paper.**
- Complete **ALL** questions.
- Use **BLACK** or **BLUE** ink.
- You are **NOT** allowed any assistance to complete the answers. You **MAY** however use a **CALCULATOR**.
- Marks are awarded for **SHOWING** your **WORKING OUT**.
- Use a **PENCIL**, **ERASER**, **RULER** and **PROTRACTOR** (as necessary) when drawing diagrams and charts.
- **SIGN** the declaration before leaving.

The duration of this examination is **1 HOUR 50 MINUTES**. The examination consists of **16 QUESTIONS** and is worth **45 MARKS**.

Complete the following

First Name *(in full)*

Middle initial

Last Name

Date of Birth *(8 digits)*

D D   M M   Y Y Y Y

Highfield Learner ID

Approved Centre Number *(5 digits)*

Nominated Tutor Number *(5 digits)*

Examination Date *(8 digits)*

D D   M M   Y Y Y Y

Is this a resit examination?   YES   NO

Examination Start Time *(24 hour clock)*

H H   M M

Examination Finish Time *(24 hour clock)*

H H   M M

Calculator Test

Learner declaration

I confirm:

- I removed the examination paper from the sealed envelope.
- I received no help in answering the questions in this examination paper.
- I am the person stated above on this form.
- I will not discuss the content of the examination with anyone else.

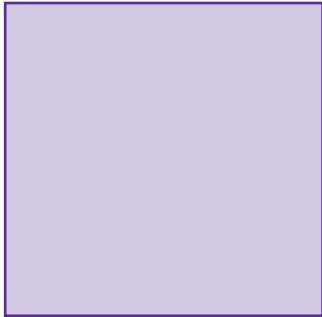**Learner signature:** ....

We listen and respond

1

Circle the letter of the shape with exactly 2 lines of symmetry.

(1 mark)

A
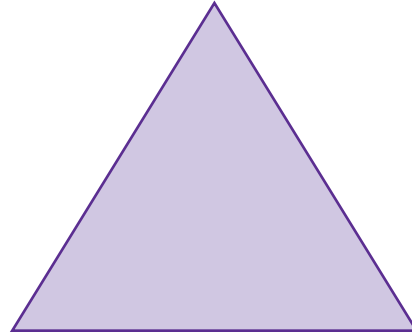
B
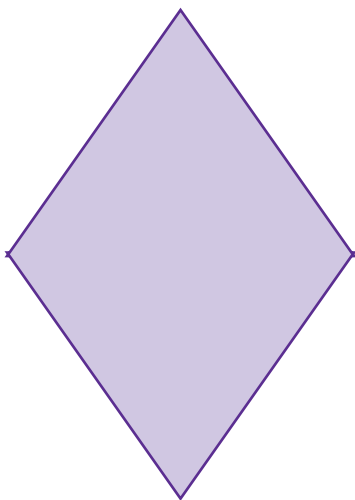
C
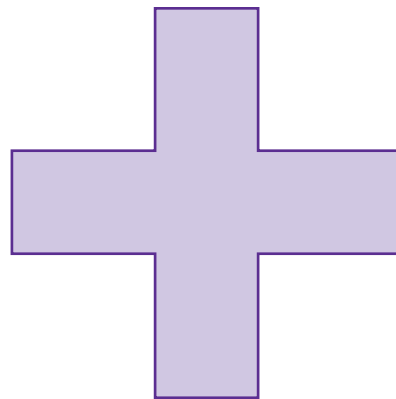
D

2

Put these fractions in order from largest to smallest.

$$\frac{18}{24} \qquad \frac{12}{8} \qquad 1\frac{3}{4} \qquad 1\frac{1}{4}$$

Write your answer in the box below.

(1 mark)

Answer: _____

3

Calculate

$$19^2$$

Write the answer in the box below.

(1 mark)

Answer: _____

4

Calculate the perimeter of this square.
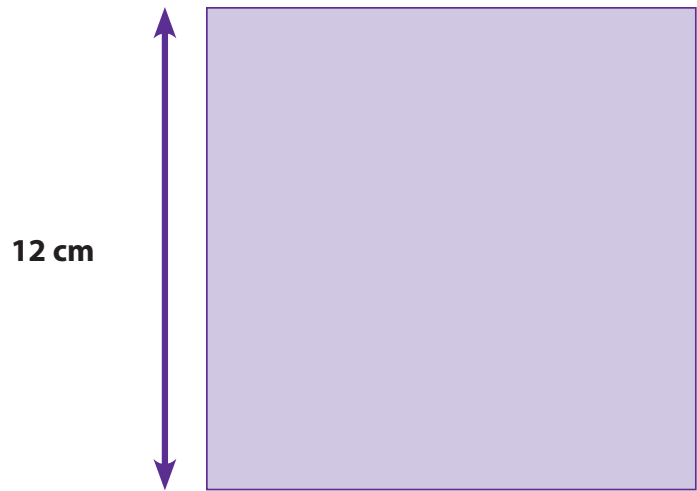
12 cm

Diagram not to scale

Show your working out and write the answer in the box below.   *(2 marks)*

Answer: _____cm

5

Calculate the mean of this set of data.

<div align="center">

14.5   18   22.5   20   13.8   8.7

</div>

Show your working out and write the answer in the box below.

(2 marks)

Answer: _____

6

Show how you could check your answer to question 5 using a reverse calculation.

Show your working out and write the answer in the box below.

(1 mark)

7

Lilly puts 3 red balls, 4 blue balls and 5 green balls in a bag.

Lilly picks one out without looking.

What is the probability that she will pick a green ball? Give your answer as a <u>fraction</u>.

Write the answer in the box below.

(1 mark)

Answer: _____

8

Calculate 700.5 ÷ 100

Write the answer in the box below.

(1 mark)

Answer: _____

9

Two houses are 160m apart.

They are drawn on a map with a scale of 1:1000

How far apart are they on the map in cm?

Show your working out and write the answer in the box below.   *(2 marks)*
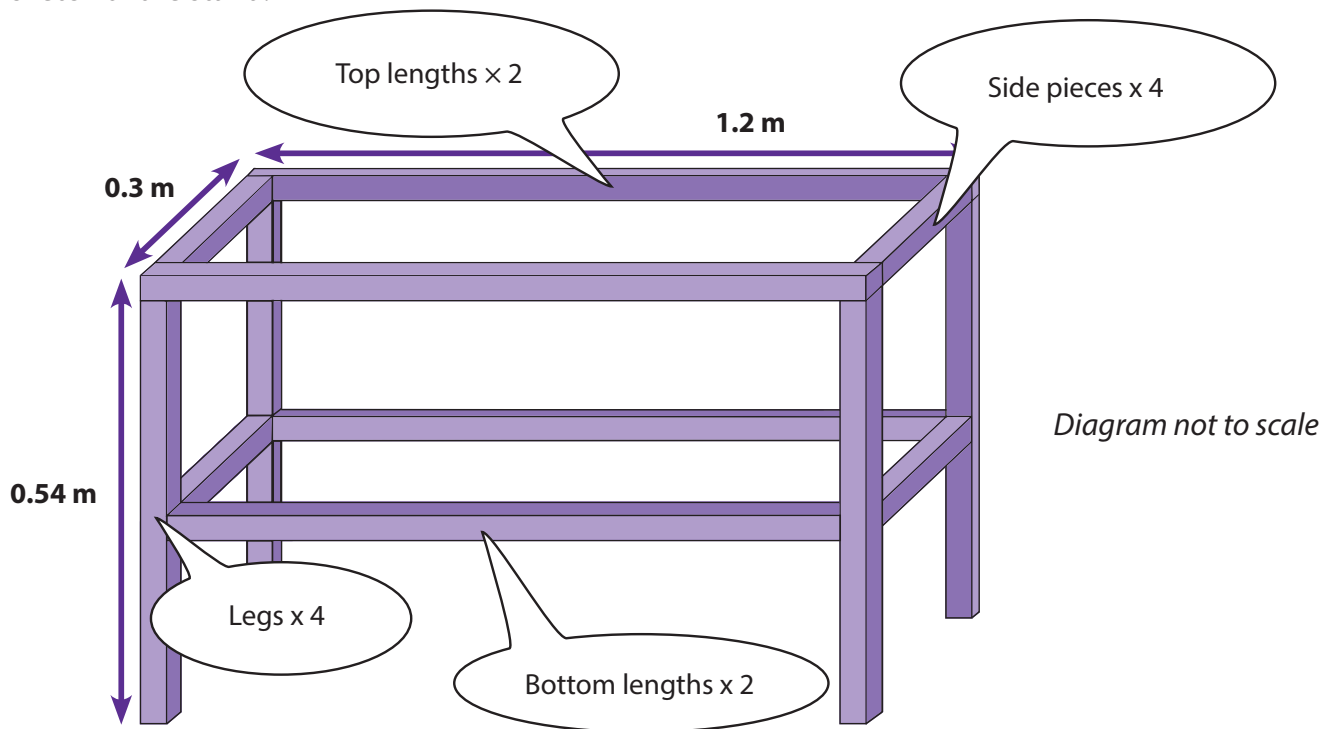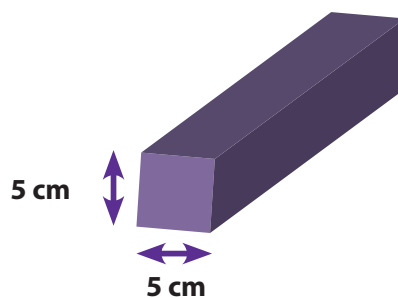
Answer: _____ cm

Scenario A
Fish tank

10

You are making a stand to put a fish tank on.

This is a sketch of the stand.

Diagram not to scale

Each piece of wood measures 5cm × 5cm. You need to consider these measurements when calculating the lengths of wood needed for the side pieces, legs and bottom lengths.

You estimate that the total length of wood you need to build the stand is 7 metres.

Is your estimate correct?

Show your working out and write the answer in the box below.

(5 marks)

Answer: _____

11

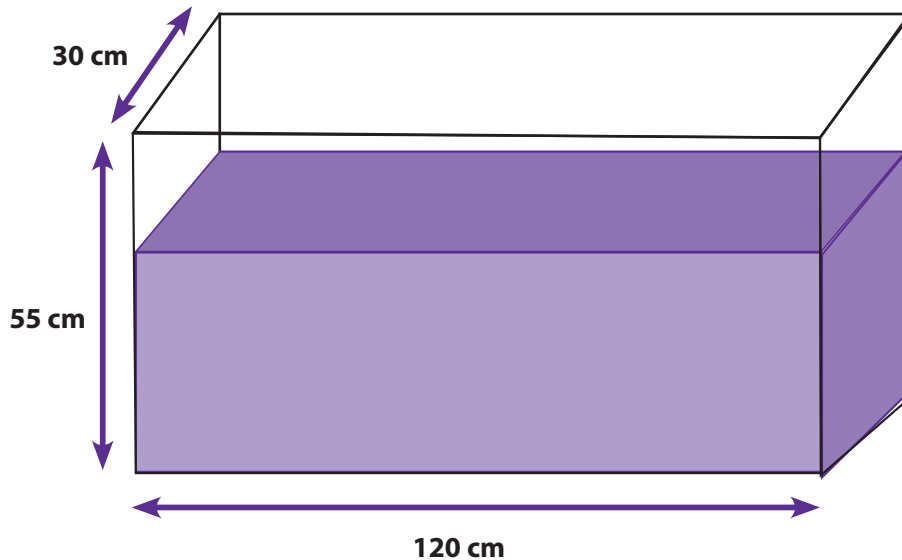You need to fill the fish tank so that it is $\dfrac{2}{3}$ full.

Diagram not to scale

30 cm

55 cm

120 cm

You use a 2-gallon bucket.

$$1000\text{cm}^3 = 1 \text{ litre} \qquad 1 \text{ gallon} = 4.5 \text{ litres}$$

How many buckets will it take to fill the tank to $\dfrac{2}{3}$ **of its capacity?**

Show your working out and write the answer in the box below.   *(6 marks)*

Answer: _____

12

You buy a light for the tank.

The description on the light says it will last for 20,000 hours before it needs changing.

You have the light on from 8:30am to 9:00pm.

You think that it will last more than 5 years.

Will the light last for more than 5 years?

Show your working out and write the answer in the box below.

(4 marks)

Answer: _____

Scenario B
Buying a house

13

Ben and Jo want to buy a house.

An estate agent tells Ben and Jo about the houses in their area.

15% of the houses have 1 bedroom.
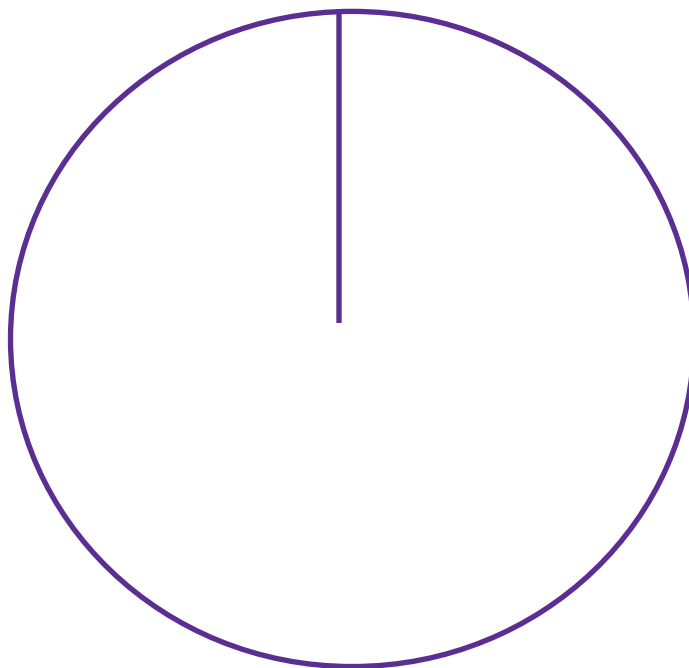55% of the houses have 2 bedrooms.
30% of the houses have 3 or more bedrooms.

The estate agent wants to display these figures in a chart to compare the proportion.

Create a pie chart below to compare the proportion of houses with 1 bedroom, 2 bedrooms and 3 or more bedrooms.

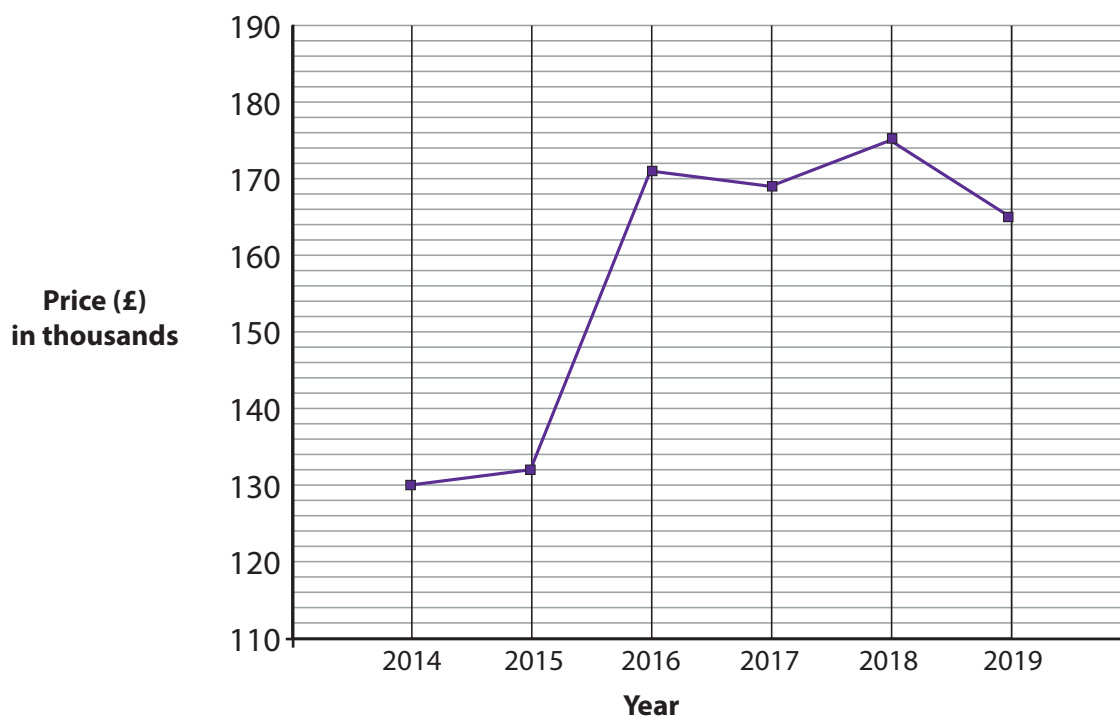Draw your chart and show any workings in the box below.

(5 marks)

Workings

14

Ben and Jo research house prices in their area.

They find this graph showing the change in average house prices over the last 5 years.

The estate agent says the average house price has increased by more than 30% from 2014 to 2019.

Is the estate agent correct?

Show your working out and write the answer in the box below.

(4 marks)

Answer: _____

15

Ben and Jo work out how much money they can borrow.

- Ben earns an average of £538.50 a week.
- Jo earns £2,725.50 a month.

They have been told to use this formula to work out the maximum amount of money that they can borrow.

Total amount of money = 3.5 × Ben's yearly wage + 3.5 × Jo's yearly wage

They think they will be able to borrow more than a quarter of a million pounds. Are they correct?

Show your working out and write the answer in the box below.

(5 marks)

Answer: _____

16

Ben and Jo find a house they like.

The estate agent tells them that the asking price is **one hundred and eighty thousand, three hundred and fifty pounds.**

The estate agent recommends they should offer 20% less.

How much should Ben and Jo offer?

Show your working out and write the answer in the box below.

(4 marks)

Answer: £_____

For official use only:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
Mark(s) available	1	1	1	2	2	1	1	1	2	5	6	4	5	4	5	4	45
Marker																	
2nd line																	

Marker:	
Date:	

2nd line marker:	
Date:	

Level 1

Mathematics

We listen and respond