Paper Code: FSQN209P

MOCK Highfield Functional Skills Qualification in Mathematics at Level 2

Level 2

Information for centres and learners

- Learners taking this examination must also complete papercode FSQC209P.
- 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 are **NOT** allowed to 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 **40 MINUTES**. The examination consists of **7 QUESTIONS** and is worth **17 MARKS**.

Complete the following

First Name
(in full)

Middle Initial

Last Name

Date of Birth
(8 digits)

Highfield Learner ID

Approved Centre Number *(5 digits)*

Nominated Tutor Number *(5 digits)*

Examination Date *(8 digits)*

Is this a resit examination? YES NO

Examination Start Time *(24 hour clock)*

Examination Finish Time *(24 hour clock)*

Non-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.
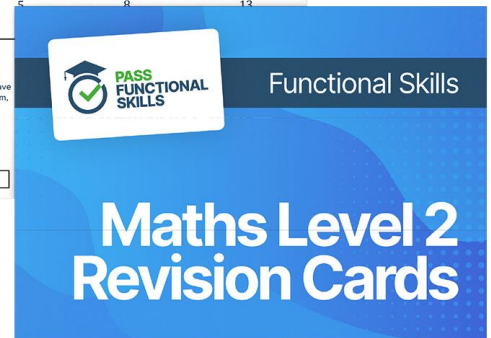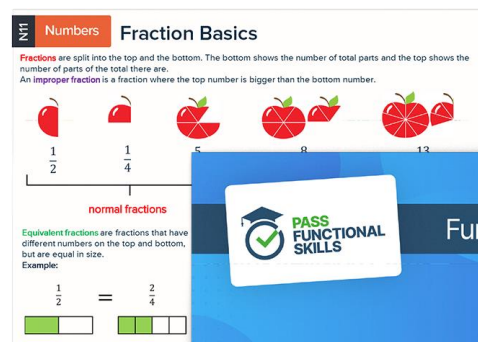
Learner signature:

We listen and respond

PASS FUNCTIONAL SKILLS

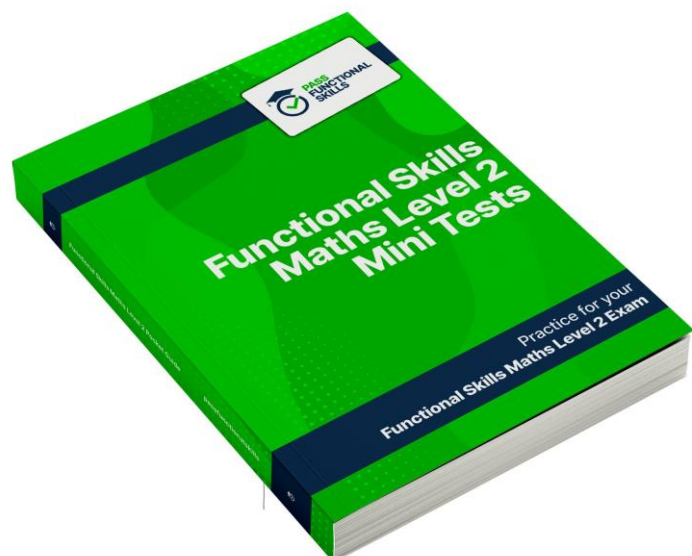# Functional Skills Products

20 Exam Papers

Revision Cards

Pocket Guide

Mini Tests

1

Calculate:

$16 + 6^2 \times 4$

Write the answer in the box below.

(1 mark)

$16 + 6^2 \times 4$

$= 16 + 36 \times 4$

$= 16 + 144$

$= 160$

36

$\times \quad 4$

$\overline{1^2 4 \ 4}$

Answer: 160

2

Calculate:

15% of 390

Write the answer in the box below.

(1 mark)

$10\% = 390 \div 10 = 39$

$5\% = 39 \div 2 = 19.5$

$15\% = 39 + 19.5$

$= 58.5$

39.0

$+ \ 19.5$

$\overline{58.5}$

Answer: 58.5

3

Calculate the median and the mode of this set of data:

5   15   24   4   15   40   32   23   9

Write the answers in the box below.

(2 marks)

Ascending order:

4, 8, 9, (15, 15), 23, 24, 40

Median: __15__   Mode: __15__

Scenario A
Media

4

You work for Highfield Advertising and Promotions. You are sending out new promotional material to customers.

- One third are leaflets
- Two fifths are brochures
- The remainder are catalogues

What fraction of the promotional materials are catalogues?

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

(3 marks)

Leaflets + brochures = $\frac{1}{3}$ + $\frac{2}{5}$

$= \frac{5}{15} + \frac{6}{15} = \frac{11}{15}$

Catalogues = $1 - \frac{11}{15} = \frac{4}{15}$

Answer: $\frac{4}{15}$

5

You are looking to buy shares in Highfield Advertising and Promotions. Your manager tells you that:

- you will receive 3% interest on the money you invest
- the interest will be applied annually
- the minimum investment time is 3 years

You decide to invest £950 for 3 years.

Calculate the compound interest you will earn after 3 years.

Show your working out and write the answer in the box below.   *(4 marks)*

Year 1:   3% of £950 :

1% = £9.50 , 3% = £28.50

end of year 1 = £950 + £28.50 = £978.50

Year 2   1% of £978.50 = £9.785

3% of £978.50 = 3 × 9.785 = £29.355

end of year 2 = £978.50 + £29.355

= £1007.855

Year 3   1% of £1007.855 = £10.07855

3% = 3 × £10.07855 = £30.23565

Total interest = £28.50 + £29.355 + £30.23565

= £88.09065

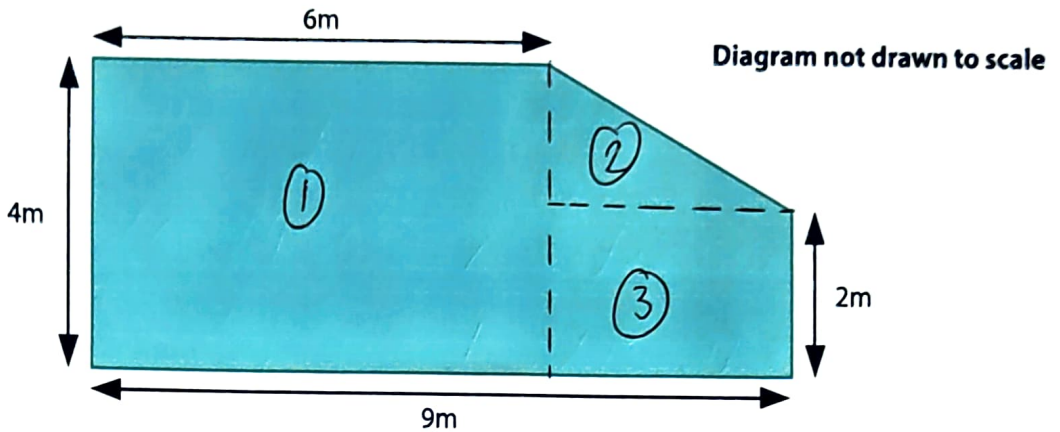= £88.10

Answer: £ 88.10

Scenario B

Kennels

6

You have recently rescued two dogs. The dogs need an outside kennel to share.

You see a kennel for sale with the following floor space:

6m

Diagram not drawn to scale

4m

②

③

2m

9m

It is recommended that each dog has a floor area of 15m²

Is the kennel big enough for your dogs?

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

(4 marks)

Area ① = 4m × 6m = 24m²

②

4m − 2m
= 2m

9m − 6m = 3m

area ② = $\frac{2 \times 3}{2}$ = 3m²

③
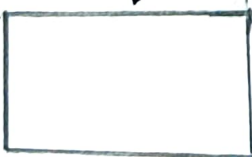
2m

area ③ = 2 × 3 = 6m²

Total area = 6 + 3 + 24 = 33m²

Answer: Yes

7

Your friend, Joanne, volunteers at the kennels.

There are 12 volunteers in total. Only 8 volunteers are needed per day and they are chosen at random.

The kennels are split into small dogs and large dogs. There are 25 small dogs and 11 large dogs.

Volunteers who are working are allocated a dog at random to walk.

On any given day, what is the probability of your friend Joanne working and being allocated a large dog?

Give your answer as a fraction.

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

$$\text{Prob (Joanne working)} = \frac{8}{12}$$

$$\text{Prob (large dog)} = \frac{11}{36}$$

$$\text{Prob (Joanne working and large dog)}$$
$$= \text{Prob (Joanne working)} \times \text{Prob (large dog)}$$
$$= \frac{8}{12} \times \frac{11}{36} = \frac{88}{432}$$

$$\begin{array}{r} 12 \\ + 36 \\ \hline 72 \\ 360 \\ \hline 432 \end{array}$$

Answer: $\dfrac{88}{432}$

END OF ASSESSMENT

For official use only:

	1	2	3	4	5	6	7	TOTAL
Mark(s) available	1	1	2	3	4	4	2	17
Marker								
Moderator								

Marker:		Moderator:	
Date:		Date:	

Level 2

Mathematics

We listen and respond

Functional Skills Maths Level 2 Exam and Course

Using Numbers	Common measures, shape and space	Handling information and data
Course Completion: 45.45%	Course Completion: 26.09%	Course Completion: 0%

Track your progress!

Calculate:

AVERAGE SCORE
Online Exams

66%

$209 + 582$

Over 800 questions
Over 40 topics

2.7 Volumes of 3D Shapes

Item	Status	Latest Result
▶ Revision	Incomplete	-
❓ Practice Tests	0/3 Complete	-
📄 Online Exam	Incomplete	-

2.8 Unit Conversions

2.9 Speed and Density

2.10 Perimeter

Course and exam from just £335!

Course only £189, exam only from £165
Options for Functional Skills Level 1 also available!

Spread the cost over up to 6 months with no interest!