Functional Skills Maths Level 2

Mock Test 1

Total marks: 49

Pass mark: 29 out of 49

Time allowed: 1 hour 45 minutes

Section A: Non-calculator (14 marks) | Section B: Calculator (35 marks)

You will need: pen, pencil, ruler, rubber, calculator (Section B only)

Name: _____ Date: _____

Section A — Non-Calculator

8 questions • 14 marks

Question 1 (1 mark)

Write 0.035 in standard form.

- A) 3.5 × 10^2
- B) 3.5 × 10^-2
- C) 35 × 10^-3
- D) 0.35 × 10^-1

Question 2 (2 marks)

Simplify: 3x + 5y − 2x + 4y − 7

- A) x + 9y − 7
- B) 5x + 9y − 7
- C) x + y − 7
- D) x + 9y + 7

Question 3 (2 marks)

A shirt costs £45. It is reduced by 20% in a sale. What is the sale price?

- A) £36
- B) £25
- C) £40
- D) £9

Question 4 (2 marks)

Work out: 3/4 ÷ 1/2

- A) 3/8
- B) 1 1/2
- C) 3/4
- D) 1/4

Question 5 (2 marks)

Solve: 4x − 7 = 21

- A) x = 3.5
- B) x = 7
- C) x = 14
- D) x = 5

Question 6 (1 mark)

What is 2^5?

- A) 10
- B) 25
- C) 32
- D) 64

Question 7 (2 marks)

Concrete is mixed in the ratio 1:2:4. How much sand is needed for 35 kg total?

- A) 5 kg
- B) 10 kg
- C) 14 kg
- D) 20 kg

Question 8 (2 marks)

Estimate: (4.92 × 19.7) ÷ 2.03

- A) 5
- B) 50
- C) 100
- D) 500

Section B — Calculator

17 questions • 35 marks

Question 9 (2 marks)

£6,000 invested at 3.5% compound interest for 2 years. Final value?

- A) £6,420
- B) £6,427.35
- C) £6,210
- D) £6,435

Question 10 (2 marks)

A room measures 4.8m × 3.5m. Carpet costs £22.50/m². Total cost?

- A) £378
- B) £186.75
- C) £756
- D) £16.80

Question 11 (2 marks)

P(bus on time) = 0.72. Out of 250 buses, how many on time?

- A) 72
- B) 180
- C) 178
- D) 200

Question 12 (2 marks)

A 5m ladder is placed with its base 3m from a wall. How high up the wall does it reach?

- A) 4 m
- B) 2 m
- C) 8 m
- D) 5.8 m

Question 13 (2 marks)

From the frequency table: 30 hrs (×4), 35 hrs (×8), 37.5 hrs (×6), 40 hrs (×2). Mean hours?

- A) 35
- B) 35.25
- C) 35.5
- D) 36

Question 14 (2 marks)

A jacket costs £78 after a 35% discount. What was the original price?

- A) £113
- B) £105.30
- C) £120
- D) £130

Question 15 (2 marks)

Map 1:25,000. 8.4 cm on map = ? km real distance.

- A) 2.1 km
- B) 21 km
- C) 210 km
- D) 0.21 km

Question 16 (2 marks)

Solve: $3x + 8 < 26$

- A) $x < 6$
- B) $x < 11.3$
- C) $x > 6$
- D) $x < 18$

Question 17 (2 marks)

Cylinder radius 4 cm, height 10 cm. Volume? ($\pi \times r^2 \times h$)

- A) 502.7 cm^3
- B) 251.3 cm^3
- C) 125.7 cm^3
- D) 1,005.3 cm^3

Question 18 (2 marks)

Two-way table: 21 people walk out of 90 total. What percentage walk?

- A) 21%
- B) 23.3%
- C) 12%
- D) 46.7%

Question 19 (2 marks)

2.4 × 10^5 − 185,000 in standard form?

- A) 5.5 × 10^4
- B) 5.5 × 10^5
- C) 55 × 10^3

■ D) 0.55 × 10^5

Question 20 (3 marks)

A recipe for 4 people uses 300g flour, 200ml milk, 2 eggs. You want to cook for 6 people. You have 400g flour, 350ml milk, 4 eggs. Enough?

■ A) No — needs 450g flour (you have 400g)
■ B) Yes — enough of all three
■ C) No — not enough milk
■ D) No — not enough eggs

Question 21 (2 marks)

285 miles ÷ 38 litres = ? miles per litre

■ A) 7.5
■ B) 7.0
■ C) 8.0
■ D) 0.1

Question 22 (2 marks)

Expand and simplify: 2(3x + 4) − 3(x − 2)

■ A) 3x + 14
■ B) 3x + 2
■ C) 9x + 14
■ D) 3x + 10

Question 23 (3 marks)

Garden 12m × 8m with a circular pond of radius 2.5m. The rest is laid with grass seed at £4.20/m². Total cost?

■ A) £320.94
■ B) £321.60
■ C) £403.20
■ D) £82.47

Question 24 (2 marks)

£1 = €1.17. Hotel costs €468 for 4 nights. Cost per night in £?

■ A) £100
■ B) £136.89
■ C) £117
■ D) £400

Question 25 (3 marks)

Electricity bill: 28p/day standing charge + 14.5p/kWh + 5% VAT. 91 days at 4,200 kWh. Total bill?

■ A) £666.23
■ B) £665.49
■ C) £634.51
■ D) £699.54