Functional Skills Maths Level 2

Mock Test 5

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 5.04 × 10^3 as an ordinary number.

- A) 5,040
- B) 504
- C) 50,400
- D) 5.040

Question 2 (2 marks)

Factorise: 6x + 15

- A) 3(2x + 5)
- B) 6(x + 15)
- C) 3(2x + 15)
- D) 2(3x + 5)

Question 3 (2 marks)

Trainers £95 reduced by 30%. Sale price?

- A) £66.50
- B) £65
- C) £28.50
- D) £76

Question 4 (2 marks)

Work out: 5/8 ÷ 1/4

- A) 2 1/2
- B) 5/32
- C) 5/2
- D) 3 1/2

Question 5 (2 marks)

Solve: 2(3x − 1) = 4x + 6

- A) x = 4
- B) x = 2
- C) x = 1
- D) x = 8

Question 6 (1 mark)

What is 10^0?

- A) 1
- B) 0
- C) 10
- D) 100

Question 7 (2 marks)

Ratio 5:3. Larger amount is £120. Smaller amount?

- A) £72
- B) £200
- C) £48
- D) £75

Question 8 (2 marks)

Estimate: (198 × 5.1) ÷ 9.8

- A) 100
- B) 10
- C) 1,000
- D) 50

Section B — Calculator

17 questions • 35 marks

Question 9 (2 marks)

Car loses 12% of its value each year. Bought at £18,000. Worth after 2 years?

- A) £13,939
- B) £15,840
- C) £13,680
- D) £14,400

Question 10 (2 marks)

Garden path 25m × 1.2m. Gravel costs £35/m². Total cost?

- A) £1,050
- B) £875
- C) £30
- D) £525

Question 11 (2 marks)

Biased coin with P(heads) = 0.6, flipped 80 times. Expected tails?

- A) 32
- B) 48
- C) 40
- D) 60

Question 12 (2 marks)

Rectangular field 150m × 80m. Length of diagonal (1dp)?

- A) 170.0 m
- B) 230.0 m
- C) 115.0 m
- D) 127.3 m

Question 13 (2 marks)

Temperatures 12, 14, 11, 15, 13, 16, 10. Range?

- A) 6°C
- B) 13°C
- C) 16°C
- D) 10°C

Question 14 (2 marks)

Coat £84 after a 40% reduction. Original price?

- A) £140
- B) £117.60
- C) £124
- D) £210

Question 15 (2 marks)

Map scale 1:40,000. Lake measures 12cm on the map. Actual length in km?

- A) 4.8 km
- B) 48 km
- C) 0.48 km
- D) 480 km

Question 16 (2 marks)

List the integers satisfying $-2 < n \leq 3$

- A) −1, 0, 1, 2, 3
- B) −2, −1, 0, 1, 2, 3
- C) −1, 0, 1, 2
- D) −2, −1, 0, 1, 2

Question 17 (2 marks)

Cone radius 6cm, height 14cm. Volume? ($V = 1/3 \times \pi \times r^2 \times h$)

- A) 527.8 cm^3
- B) 1,583.4 cm^3
- C) 263.9 cm^3
- D) 158.3 cm^3

Question 18 (2 marks)

16 out of 100 surveyed aged 40+ chose adventure. Percentage?

- A) 16%
- B) 8%
- C) 28.6%
- D) 28%

Question 19 (2 marks)

(9.5 × 10^-13) × (4 × 10^5) in standard form?

- A) 3.8 × 10^-7
- B) 3.8 × 10^-8
- C) 38 × 10^-8

■ D) 9.5 × 10^-8

Question 20 (3 marks)

1,200 seats. Standard £45 each, Premium £72 each. Total revenue £64,800. Number of standard tickets sold?

- A) 800
- B) 400
- C) 600
- D) 900

Question 21 (2 marks)

340 miles in 5 hours 20 minutes. Average speed (mph)?

- A) 63.75 mph
- B) 68 mph
- C) 64 mph
- D) 56.67 mph

Question 22 (2 marks)

Expand: $(2x + 1)(x - 4)$

- A) $2x^2 - 7x - 4$
- B) $2x^2 - 9x - 4$
- C) $2x^2 + 7x - 4$
- D) $2x^2 - 7x + 4$

Question 23 (3 marks)

Fish tank 80cm × 35cm × 40cm. Filled to a water depth of 32cm. Volume in litres?

- A) 89.6 L
- B) 112 L
- C) 8,960 L
- D) 44.8 L

Question 24 (2 marks)

£1 = 1.52 CHF. Watch costs 684 CHF. Price in £?

- A) £450
- B) £1,039.68
- C) £380
- D) £520

Question 25 (3 marks)

Business this month: rent £1,200, wages £4,800, materials 15% of revenue, insurance £250. Revenue was £9,000. Profit?

- A) £1,400
- B) £2,750
- C) £1,350
- D) £2,400