

# Mark Scheme - Final Version

## January 2009

Functional Skills

Maths Level 2 (FM201/01)  
Pilot

## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

FM201/01				
No	Working	Answer	Mark	Notes
1	(a) 22.8-22.0 = (b)  (c) $\frac{(10.8+11.1+11.4+11.0+10.0+9.4+8.8+8.5)}{8}$	0.8 Reason  10.125	1 2  2	B1 Accept -0.8 (%) B2 for a complete description (eg goes up and then goes down); B1 for describing one aspect (eg goes up or down). For B1 ignore any incorrectly quoted figures. M1 (10.8+11.1+11.4...) $\div$ 8=81 $\div$ 8 A1 10.1(25) SC: B1 if incorrect column used eg. BBC1:24.8(375), ITV1:23.3(625), C4: 9.7(375), Cfive: 6.0(125), Oth: 25.9(375)
2	(a) $\pounds 10,000 \div 2843 = 3.5174\dots$  (b) Daytime: $50,000 \div 800 \times 0.2 = 12.5$ Local news: $50,000 \div 1860 \times 0.8 = 21.5$ Peak soap: $50,000 \div 6907 \times 3.1 = 22.44$ Drama: $50,000 \div 3719 \times 1.8 = 24.2$ If adverts are rounded the figures are: 12.4 , 20.8 , 21.7 , 23.4  Alternative (additional) method: could also include up to 2 $\times$ Daytime shows with an additional 0.4 viewers, taking the figure to 23.8	3  Drama 24.2 or 23.4	2  3	M1 process of $\pounds 10,000 \div 2843$ (or 3.51...) or at least 3 additions of 2843 A1 cao M1 process of dividing into 50,000 to find the number of adverts (at least one) with no contradiction. M1 process of multiplying by viewing figures (at least one) with no contradiction. A1 for comparing all four figures and deducing 24.2 or 23.4 (or better)
3	(a) $26 \times 270 =$ (b) $1860 \div 3 \times 2 =$	$\pounds 7020$ $\pounds 1240$	1 3	B1 cao M1 for process of $\div 3$ M1 for process of $\times 2$ A1 cao

FM201/01				
No	Working	Answer	Mark	Notes
4	(a) $3 \times 60 = 180$ ; $180 \div 30 =$	6	1	B1 cao
	(b) $24 \times 30 \div 60 =$	12 min.	2	M1 for $24 \times 30$ or 720 seen. A1 cao
	(c) 60-“12”=	48 min.	1	B1 48 or ft 60 – (b) if (b) < 60
	(d) $\frac{30}{3600} = \frac{1}{120}$	$\frac{1}{120}$	2	M1 for $60 \times 60$ or 3600 seen or $\frac{30}{3600}$ oe A1 cao
5	(a)	125	2	M1 for the process of totalling the numbers A1 cao
	(b)	1/125	2	B2 for 1/”125” (accept fractions, decimals, percentages only) (B1 for 1/”125” using incorrect notation such as 1:125, 1 in 125, etc.)
	(c) Bars of height 2, 8, 6	Graph	2	M1 for process of drawing graph by showing 3 columns, at least 2 correct heights. A1 Three correct columns, correct heights, correct shading (distinct & linked to key given); allow misplacing by 1 column horiz to right but no gaps between columns.
	(d)	Conclusion	1	B1 one conclusion eg (bookings are) falling description of a trend
6	(a) EFDACB, EFADCB, EDFACB, EAFDCB	Correct order	2	B2 for all correct (B1 for at least 4 letters placed consecutively).
	(b) (i) $35 \div 5 =$	7	2	B1 cao
	(ii) $15 \div 10 =$	27-29 Lancaster or 1.5	2	B1 answer 27-29 inclusive. M1 evidence of a division (sq m $\div$ guests) eg E 1.2 B 1.2 E 1.2 M 1.2857 V 1.25 L 1.5 A1 Lancaster or 1.5 NB: A1 is dependent on seeing calculations for at least 4 rooms.

FM201/01				
No	Working	Answer	Mark	Notes
7	(a) $8 \times 2 + 2 = 18$	18	2	M1 for process of adding guests, perhaps shown on a partial diagram indicating more than 5 tables, or sight of $8 \times 2$ or attempts to find the perimeter for more than 5 tables A1 cao
	(b) $8 \times 4 =$	32	2	M1 for groups of 4 indicated, or $\times 8$ A1 cao
8	$(100 \times 2) + (32 \times 15 \times 2) = 200 + 960 =$	£680 or £1160	3	M1 process of calculating either $100 \times 2$ or $32 \times 15 \times 2$ , implied by sight of 200 or 960 or $32 \times 15 = 480$ or +100 (implied by 580) M1 for full process of $(100 \times 2) + (32 \times 15)$ or $(100 \times 2) + (32 \times 15 \times 2)$ or $200 + 480$ or $200 + 960$ A1 £680 or £1160
9	(a) 264153	264153	2	B2 cao (B1 for at least 3 of the order correct)
	(b) $41100 \div 3 =$	£13700 millions	2	M1 for $\div 3$ or 13700 A1 cao Must include £ and millions.
10	(a)	Cuboid	2	B2 for correct cuboid drawn (B1 for at least 2 dimensions drawn correctly) Any orientation; allow $\pm 2$ mm tolerance.
	(b) $\pi \times 1.5 \times 1.5 \times 12 =$	84.7-85	2	M1 $\pi \times 1.5 \times 1.5 \times 12$ A1 answer 84.7-85 inclusive
	(c) $12 \times 20 \div 100$ oe or $\div 5$	2.4 cm	2	M1 correct process of finding 20% A1 oe
11.	(a) $\pounds 10 \div \pounds 2.99 = 3.344$ ; $3 \times 100 = 300$	300	2	M1 for process of finding the number of packs: $\pounds 10 \div \pounds 2.99 = 3.344$ or sight of 3 A1 for 300
	(b) $(3 \times \pounds 2.39) + (2 \times \pounds 9.99) = \pounds 7.17 + \pounds 19.98 = \pounds 27.15$ $\pounds 30 - \pounds 27.15 = \pounds 2.85$	£2.85	3	M1 for process of finding $3 \times 2.39 (=7.17)$ or $2 \times 9.99 (=19.98)$ M1 (dep) for addition of parts and subtraction from £30, or sight of $\pounds 30 - "\pounds 27.15"$ A1 cao SC: B2 for digits 285

FM201/01				
No	Working	Answer	Mark	Notes
12.	(a) $24 \times 14.3 =$	343.2 mm or 34.32 cm	2	B2 for correct numerical answer with appropriate units (B1 for correct numerical answer OR appropriate units with approximate answer)
	(b) Length $18 \times 14.3 =$ Width $2 \times 48.4 =$	Length 257.4 Width 96.8	2	M1 for $18 \times 14.3$ or $2 \times 48.4$ or 257.4 or 96.8 or both answers the wrong way around. A1 cao both correct
	(c)	(W=) 4.5	1	B1 cao Allow 4.5Watts or 4.5W

Total for paper: 60 marks