



Practice Tests Set 17 – Paper 1F mark scheme, performance data and suggested grade boundaries

Qn	Working	Answer	Mark	Notes
1		6 squares shaded	1	B1
				Total 1 mark
2	c	$7d - 3e$	2	B2 (B1 for $7d$ or $-3e$ or $7d + -3e$)
				Total 2 marks
3	b	$\frac{3}{10}$	1	B1
				Total 1 mark
4	a	a^4	1	B1
				Total 1 mark
5	b	$20bc$	1	B1
				Total 1 mark

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Qn	Working	Answer	Mark	Notes
6 (a)		Wednesday	1	B1
(b)	4 : 2.5 or 16 : 10 oe		2	M1
		8 : 5		A1 M1 A0 for 5 : 8
(c)		3.5 “envelopes”	1	B1 Accept   for half an envelope
(d)	$\frac{6}{14}$		2	M1
		$\frac{3}{7}$		A1
(e)	eg Heights of bars (cms): 7, 5.5, 3 or heights of 3.5, 2.75, 1.5 cms	bars at correct heights and correct scale	2	B2 B2 for all bars at correct heights with a correct scale (at least one value, not contradicted. 0 implied) If not B2 then B1 for 1 error on heights or no scale, but with heights in correct proportion eg 7, 5.5, 3 cms
				Total 8 marks

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Qn	Working	Answer	Mark	Notes
7	$\frac{4}{15} \times 1200 (= 320)$ or for $\frac{3}{15}$ or $\frac{8}{15}$ seen		4	M1
	$1200 - \text{"320"} (= 880)$ and $\text{"880"} \div 11 (=80)$ or $\frac{3}{11} \times 880 (= 240)$ oe or $\frac{3}{15} \times 1200 (= 240)$ oe			M1
	$1200 - (\text{"320"} + \text{"240"})$ or $880 - 240 (= 640)$ or $\frac{8}{11} \times 880 (= 640)$ or $\frac{8}{15} \times 1200$ oe			M1
		320, 240, 640		A1 Must be on correct answer lines or clearly attributed to cake <i>A</i> , <i>B</i> and <i>C</i> , otherwise withhold final A mark.
				Total 4 marks

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Qn	Working	Answer	Mark	Notes
8	ai	likely	1	B1
	aii	impossible	1	B1
	b	cross at $\frac{1}{2}$	1	B1
	c	cross at $\frac{1}{6}$	1	B1
				Total 4 marks

9	a	$(-2, 3)$	1	B1
	b	(\times) at $(4, -2)$	1	B1 condone missing label as long as unambiguous
	c	$y = -3$	1	B1 oe
				Total 3 marks

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Qn	Working	Answer	Mark	Notes
10 a		Fully correct Venn diagram	3	B3 fully correct Venn diagram (B2 for 2 or 3 sections correct B1 for 1 section correct)
b				M1 ft from (a) '4' where $a \geq 4$ or $\frac{b}{12}$ where $b \leq 12$
		$\frac{4}{12}$	2	A1 oe
				Total 5 marks

11	$2x - 3 = 20 \div 5$ or $10x - 15 = 20$		3	M1
	$2x = \text{"4"} + 3$ oe or $10x = 20 + \text{"15"}$ $10x = 35$ oe			M1 For collecting terms, ft their expansion
		3.5 oe		A1 dep M1 accept $\frac{7}{2}$ or $\frac{35}{10}$
				Total 3 marks

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Qn	Working	Answer	Mark	Notes
12 (a)	4 – – 6 or – 6 – 4 or – 10		2	M1 Identifying 4 and – 6 only. or for stating 10 or – 10
		10		A1
(b)	– 6, – 5, – 1, 3, 4 or 4, 3, – 1, – 5, – 6		2	M1 Putting temperatures in ascending or descending order.
		– 1		A1
(c)	$\frac{3}{5} \times 100$ oe		2	M1 accept $\frac{3}{5}$ or 0.6 oe
		60		A1
(d)	– 6 + 8		2	M1
		2		A1 Accept +2
				Total 8 marks

13	a		Trapezium	1	B1
	b		42	1	B1 Accept 40 – 44
	c		Correct lines marked	1	B1
	d		2	1	B1
					Total 4 marks

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Qn	Working	Answer	Mark	Notes
14 (a)		12 348	1	B1
(b)		84 312	1	B1
(c)		1,3	2	B2 for both correct values -1 eeo
(d)		2,3	2	B2 for both correct values -1 eeo
				Total 6 marks

15 (a) (i)		Sphere	1	B1
(a) (ii)		Cone	1	B1
(a) (iii)		Prism	1	B1 Accept hexagon prism or hexagonal prism
(b) (i)		8	1	B1
(ii)		12	1	B1
				Total 5 marks

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Qn	Working	Answer	Mark	Notes
16 a		$15a + 20$	1	B1
b		$2(2c - 7)$	1	B1
c	E.g. $5x - x = 6 + 11$ or $4x - 11 = 6$ or $5x = x + 17$			M1 for correct rearrangement with x terms on one side and numbers on the other or the correct simplification of either x terms or numbers on one side in a correct equation
	$4x = 17$ or $-4x = -17$			M1
		4.25	3	A1 oe, dep on at least M1
				Total 5 marks

17 (a) (i)		kilometres	1	B1 Accept km or kms
(ii)		litres	1	B1
(iii)		square cm	1	B1 Accept sq cm, square centimetres, cm^2 etc.
(b)		1.8 → 2.2 metres	2	B2 B2 for 1800 → 2200 mm or 180 → 220 cm or 1.8 → 2.2 m If not B2, then B1 for metres, centimetres or millimetres
				Total 5 marks

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Qn	Working	Answer	Mark	Notes
18	(-2, 7) (-1, 5) (0, 3) (1, 1) (2, -1) (3, -3)	Correct line between $x = -2$ and $x = 3$	3	B3 for a correct line between $x = -2$ and $x = 3$ (B2 for a correct straight line segment through at least 3 of (-2, 7) (-1, 5) (0, 3) (1, 1) (2, -1) (3, -3) or for all of (-2, 7) (-1, 5) (0, 3) (1, 1) (2, -1) (3, -3) plotted but not joined) (B1 for at least 2 correct points stated (may be in a table) or plotted or for a line drawn with a negative gradient through (0, 3) or for a line with a gradient of -2)
				Total 3 marks

19	(a)		$81k^8$	2	B2 B1 for 81 or k^8 seen in their final answer.
	(b)		$7m^4n^6$	2	B2 B1 for $7m^4$ or n^6 in a product with no other terms in m or n
					Total 4 marks

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Qn	Working	Answer	Mark	Notes
20	e.g. $\frac{16}{5}$ and $\frac{11}{6}$ or $\frac{96}{30}$ and $\frac{55}{30}$		3	M1 for two correct improper fractions
	e.g. $\frac{16^8}{5} \times \frac{11}{6^3}$ or $\frac{176}{30}$ or $\frac{5280}{900}$ oe			M1 correct cancelling or multiplication of numerators and denominators without cancelling
	e.g. $\frac{16}{5} \times \frac{11}{6} = \frac{176}{30} = \frac{88}{15} = 5\frac{13}{15}$ or $\frac{16}{5} \times \frac{11}{6} = \frac{176}{30} = 5\frac{26}{30} = 5\frac{13}{15}$ or $\frac{16^8}{5} \times \frac{11}{6^3} = \frac{88}{15} = 5\frac{13}{15}$ or $\frac{96}{30} \times \frac{55}{30} = \frac{5280}{900} = \frac{88}{15} = 5\frac{13}{15}$ NB: a student can show initially that $5\frac{13}{15} = \frac{88}{15}$ and they need to show that LHS $= \frac{88}{15}$	shown		A1 Dep on M2 for conclusion to $5\frac{13}{15}$ from correct working – either sight of the result of the multiplication e.g. $\frac{176}{30}$ must be seen and equated to $\frac{88}{15}$ or $5\frac{26}{30}$ or correct cancelling prior to the multiplication to $\frac{88}{15}$ NB: use of decimals scores no marks
				Total 3 marks

21	(c)	$54 \div (9 \times 2)$		2	M1
			3		A1
					Total 2 marks

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Qn	Working	Answer	Mark	Notes
22 a	e.g. $A + 5z = \frac{c}{y}$ oe or $Ay = c - 5yz$ oe		2	M1 for a correct first step e.g. add 5z to both sides or multiply all terms by y
		$c = y(A + 5z)$		A1 oe
				Total 2 marks

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Qn	Working	Answer	Mark	Notes
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Qn	Mean score	Max score	Mean %	Edexcel averages: scores of candidates who achieved grade:						
				ALL	5	4	3	2	1	U
1	0.90	1	90	0.90	0.99	0.92	0.94	0.64	0.17	0.50
3	0.86	1	86	0.86	0.98	0.87	0.75	0.59	0.42	0.50
2	1.65	2	83	1.65	1.92	1.74	1.28	0.95	0.58	1.50
4	0.79	1	79	0.79	0.81	0.85	0.81	0.55	0.83	0.50
5	0.88	1	88	0.88	0.97	0.79	0.84	0.82	0.50	0.50
6	6.64	8	83	6.64	7.17	6.72	6.06	5.79	3.93	3.00
7	2.95	4	74	2.95	3.84	3.13	2.03	0.26	0.08	0.00
8	3.18	4	80	3.18	3.60	3.09	2.70	2.45	1.83	2.00
9	2.39	3	80	2.39	2.70	2.12	2.01	1.91	1.75	1.00
10	3.67	5	73	3.67	4.40	3.52	3.25	1.54	1.34	1.50
11	2.30	3	77	2.30	2.77	2.11	2.23	1.22	0.08	0.00
12	5.81	8	73	5.81	6.97	5.53	4.48	3.70	1.50	0.00
13	2.83	4	71	2.83	3.23	2.66	2.59	1.96	1.33	1.00
14	4.24	6	71	4.24	4.76	3.85	3.65	3.30	3.00	1.00
15	3.16	5	63	3.16	3.59	3.00	2.72	2.34	1.91	0.00
16	3.53	5	71	3.53	4.58	2.97	2.50	1.59	0.25	0.50
17	3.25	5	65	3.25	3.71	2.94	2.71	2.57	1.84	1.00
18	1.88	3	63	1.88	2.60	1.51	0.94	0.59	0.00	0.00
19	2.03	4	51	2.03	2.74	1.63	1.13	0.74	0.25	1.00
20	1.46	3	49	1.46	2.02	1.18	0.50	0.59	0.25	0.50
21	1.09	2	55	1.09	1.56	0.76	0.58	0.17	0.00	0.00
22	0.52	2	26	0.52	0.85	0.18	0.16	0.00	0.00	0.00
	56.01	80	70	56.01	66.76	52.07	44.86	34.27	21.84	16.00

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Qn	Working	Answer	Mark	Notes
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Suggested grade boundaries

Grade	5	4	3	2	1
Mark	59	48	39	28	19