Qn		Working	Answer	Mark	Notes	
1	(a)		25	1	B1	cao
	(b)		1 and ½ squares	1	B1	Oe the half symbol can be drawn in any direction.
	(c)		Monday	1	B1	M or Mon (allow incorrect spelling if meaning is clear)
	(d)	20 + 55 + 40 + '25' + 30		2	M1	check by side of pictogram for working – allow values without '+' signs if clear attempt to add (allow one error or omission)
			170		A1	cao
						Total 5 marks

2			*7x*	1	B1	cao
			28*p*	1	B1	cao
						Total 2 marks

Qn		Working	Answer	Mark	Notes
3	(a)		$\frac{5}{25}$ $\frac{8}{40}$	2	B1 B1 B2 for 2 correct only. B1 for 1 correct only – 1 mark for each incorrect tick if more than 2 ticks
	(b)		Octagon	1	B1 Accept misspellings
	(c)		6 'sectors' shaded oe	1	B1 Shading equivalent to 6 sectors
	(d)	$\frac{56 \times 3}{4} (=\frac{168}{4})$ or $\frac{56}{4} \times 3 \,(=14 \times 3)$		2	M1
			42		A1
					Total 6 marks

4	(a)		548	1	B1 cao
	(b)		4.6	1	B1 allow 4.6000….
	(c)	$(32 - 5) \div 2$		2	M1
		Correct answer scores full marks (unless from obvious incorrect working)	13.5		A1 oe
					Total 4 marks

5	(a)		20	1	B1 cao
	(b)		add 4	1	B1 oe 4 times table or 4*n* or goes up in 4's, allow 'the gap is +4' but not 'the gap is 4'
	(c)		4*n*	1	B1 4*n* + 0 not n = 4×n
					Total 3 marks

2

Qn		Working	Answer	Mark	Notes
6	(a)		15	1	B1 cao
	(b)	19 – 13		2	M1 19 and 13 selected or
					$a - b$ where $a = 19$ or $b = 13$
		Correct answer scores full marks (unless from obvious incorrect working)	6		A1 cao
					Total 3 marks

7	(a)		4	1	B1
	(b)		$24ab$	1	B1 accept $ab24$ etc. but no × signs
	(c)	$8w + w$ or $-4y (+) - 3y$		2	M1 M1 for $9w$ or $-7y$
			$9w - 7y$		A1
	(d)		$4(4 + 3t)$ oe	2	B2 if not B2 then B1 for $2(8 + 6t)$
					Total 6 marks
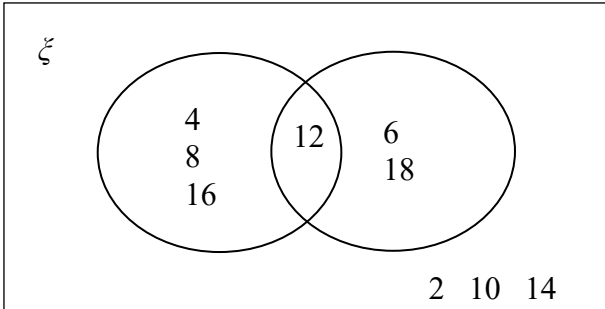
8	(a)		2.001, 2.07, 2.1, 2.12, 2.19	1	B1 cao
	(b)		6 tenths	1	B1 oe eg tenths, six tenths, $\dfrac{6}{10}$ (do not allow 0.6 or .6)
	(c)		3.49	1	B1 cao
	(d)		60	1	B1 cao
					Total 4 marks

Qn		Working	Answer	Mark		Notes
9	(a)		Chicago	1	B1	Accept misspellings
	(b)		16	1	B1	accept –16
	(c)	$-1 + 2 \times 3$		2	M1	for clearly adding 3 lots of 2 or the sequence – 1, 1, 3, 5
			5		A1	
						Total 4 marks

Qn		Working	Answer	Mark		Notes
10	(a)		9	1	B1	allow 3^9
	(b)		21	1	B1	allow 5^{21}
	(c)	$8 + 2 - p = 6$ oe eg $8 + 2 = 6 + p$ or $7^{8+2-p} = 7^6$ oe		2	M1	(or embedded eg $8 + 2 = 10$, $10 – 4 = 6$)
		Correct answer scores full marks (unless from obvious incorrect working)	4		A1	allow 7^4
						Total 4 marks

Qn		Working	Answer	Mark		Notes
11	(a)		(1, 4)	1	B1	
	(b)	$180 + "68"$ or $360 – "112"$		2	M1	accept 66° to 70° or 110° to 114° seen or used.
			248		A1	accept 246° to 250°

Qn	Working	Answer	Mark	Notes	
(c)		5.4	1	B1	accept 5.2 cm to 5.6 cm ignore answer line if 1dp answer given on diagram or in space.
(d)		27	1	B1ft	ft "*their* c" × 5 if B1 awarded in part (c)
(e)		2 hr 20 min	2	B1 B1	for 2 hours for 20 minutes if no marks awarded, SC B1 for eg 1hr 80min or 140min
					Total 7 marks

Qn	Working	Answer	Mark	Notes
12 (a)			3	B3 fully correct (B2 for three correct regions) (B1 for one or two correct regions) [a repeat in a region is an error]
(b)	$\dfrac{'6'}{9}$		2	M1 Numerator correct (or value intended as numerator) or correct for their Venn diagram (so long as fraction not improper) or 6 out of 9 or 6 : 9 oe (ie correct values in incorrect form)
		$\dfrac{6}{9}$		A1 Oe allow (0.66)666….rounded or truncated Allow 0.6 only if preceded by $\dfrac{6}{9}$
				Total 5 marks

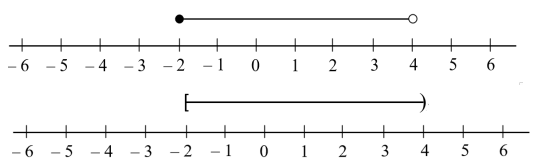| Qn		Working	Answer	Mark	Notes
13	(a)	eg $\dfrac{3}{10}\times\dfrac{4}{1}(=\dfrac{12}{10})$ or $\dfrac{6}{20}\div\dfrac{5}{20}$ or $\dfrac{12}{40}\div\dfrac{10}{40}$		2	M1 Inverting $\dfrac{1}{4}$ and changing to multiply or writing both fractions with the same denominator.
		eg $\dfrac{3}{10}\times\dfrac{4}{1}=\dfrac{12}{10}=\dfrac{6}{5}$ or $\dfrac{6}{20}\div\dfrac{5}{20}=\dfrac{6}{5}$ or eg $\dfrac{3}{\cancel{10}^{5}}\times\dfrac{\cancel{4}^{2}}{1}=\dfrac{6}{5}$	shown		A1 Conclusion to $\dfrac{6}{5}$ from correct working – either sight of the result of the multiplication eg $\dfrac{12}{10}$ must be seen or correct cancelling prior to multiplication. NB use of decimals scores no marks.
	(b)	eg $\dfrac{10}{12}-\dfrac{9}{12}$ or $\dfrac{20}{24}-\dfrac{18}{24}$ oe **or** eg $\dfrac{10-9}{12}$		2	M1 for correct fractions with a common denominator of 12 or a multiple of 12.
		eg $\dfrac{10}{12}-\dfrac{9}{12}=\dfrac{1}{12}$ or $\dfrac{20}{24}-\dfrac{18}{24}=\dfrac{2}{24}=\dfrac{1}{12}$ oe	clearly shown		A1 dep on M1 for a correct answer from fully correct working.
					Total 4 marks

Qn		Working	Answer	Mark	Notes
14	(a)		e^6	1	B1 cao
	(b)	$x^2 - 3x + x - 3$		2	M1 for any 3 correct terms **or** for 4 out of 4 correct terms ignoring signs **or** for $x^2 - 2x \ldots$ **or** for $\ldots -2x - 3$
		Correct answer scores full marks (unless from obvious incorrect working)	$x^2 - 2x - 3$		A1
					Total 3 marks

Qn	Working	Answer	Mark	Notes
15	<table><tr><td>*x*</td><td>−2</td><td>−1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>*y*</td><td>7</td><td>4</td><td>1</td><td>−2</td><td>−5</td><td>−8</td></tr></table> (−2, 7) (−1, 4) (0 ,1) (1, −2) (2, −5) (3, −8)	Correct line between *x* = −2 and *x* = 3	3	B3 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, 4) (0, 1) (1, −2) (2, −5) (3, −8) **or** for all of (−2, 7) (−1, 4) (0, 1) (1, −2) (2, −5) (3, −8) 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 (0,1) **or** for a line with a gradient of −3)
				Total 3 marks

Qn	Working	Answer	Mark		Notes
16 (a)		Enlargement	3	B1	for enlargement, enlarge, etc so long as no mention of rotation, reflection or translation, flip, move etc.
		scale factor 3		B1	SF 3, triple, three times etc. with no mention of a vector, line, angle of rotation.
		centre (0, 0)		B1	Accept centre O or the origin
(b)	line $x = 5$ drawn **or** shape in correct orientation, not necessarily in correct position.		2	M1	Can be implied by correct answer.
		Shape with vertices at (7, 2), (7, 4), (8, 3), (9, 3), (9, 2)		A1	
					Total 5 marks

17	$(0.5 \times 4 \times 6) - (0.5 \times 2 \times 3)$		3	M2	if not M2 then M1 for either $0.5 \times 4 \times 6$ (= 12) or $0.5 \times 2 \times 3$ (= 3)
	or $2 \times 3 + 0.5 \times 2 \times 3$				if not M2 then M1 for either area of 1 large parallelogram (2×3) or 1 triangle ($0.5 \times 3 \times 2$)
	or $(0.5 \times 4 \times 6) - (0.25 \times$ "$0.5 \times 4 \times 6$") oe				Allow M1 for consistent use of incorrect side lengths, eg $0.5 \times 5 \times 7$
		9		A1	
					Total 3 marks

Qn		Working	Answer	Mark	Notes
18	(a)		1	1	B1
	(b)(i)	$(x \pm 4)(x \pm 9)(= 0)$		2	M1 or $(x + a)(x + b)$ where $ab = -36$ **or** $a + b = -5$
		Correct answer scores full marks (unless from obvious incorrect working)	$(x+4)(x-9)$		A1 (isw if they also solve the equation in this part)
	(ii)	*Answers must ft from (b)(i)*	−4 and 9	1	B1 ft Answer **must** ft from their $(x + p)(x + q)$ in (b)(i) Award B0 for −4 and 9 if no marks scored in (i)
					Total 4 marks

Qn	Working	Answer	Mark	Notes
19 (i)	$-7 + 3 \leq 2x < 5 + 3$ oe or $\dfrac{-7}{2} \leq x - \dfrac{3}{2} < \dfrac{5}{2}$ oe or $-7 + 3 \leq 2x$ oe **and** $2x < 5 + 3$ oe or $(x =) -2$ or $(x =) 4$		3	M1 or one side of the inequality correct, i.e.. $x \geq -2$ oe or $x < 4$ Condone = rather than ≤ or < or any other sign for the M marks.
	$\dfrac{-7 + 3}{2} \leq x < \dfrac{5 + 3}{2}$ or $\dfrac{-7}{2} + \dfrac{3}{2} \leq x < \dfrac{5}{2} + \dfrac{3}{2}$ or $\dfrac{-7 + 3}{2} \leq x$ oe **and** $x < \dfrac{5 + 3}{2}$ or $(x =) -2$ and $(x =) 4$			M1
	Correct answer scores full marks (unless from obvious incorrect working)	$-2 \leq x < 4$		A1 allow $x \geq -2$ and $x < 4$ Allow $[-2, 4)$
(ii)			2	M1 ft for drawing a line from −2 to 4 or (indep) for a closed circle or [at −2 or (indep) for an open circle or) or [at 4 Only allow a follow through for a double ended inequality
		Correct diagram		A1 ft for correct diagram Only allow a follow through for a double ended inequality
				Total 4 marks

Qn	Working		Answer	Mark	Notes

Qn	Mean score	Max score	Mean %	Edexcel averages: scores of candidates who achieved grade:						
				ALL	5	4	3	2	1	U
1	4.55	5	91	4.55	4.80	4.75	4.65	4.49	3.19	2.07
2	1.74	2	87	1.74	1.91	1.79	1.71	1.50	1.37	1.08
3	5.06	6	84	5.06	5.79	5.30	5.03	4.23	2.92	1.37
4	2.82	4	71	2.82	3.77	3.16	2.37	1.73	0.96	0.31
5	2.25	3	75	2.25	2.54	2.23	2.10	2.02	1.88	1.39
6	1.99	3	66	1.99	2.54	2.21	1.89	1.29	0.45	0.46
7	3.96	6	66	3.96	5.19	4.41	3.28	2.39	2.00	0.74
8	2.30	4	58	2.30	2.96	2.54	1.94	1.54	1.15	0.62
9	2.54	4	64	2.54	3.13	2.53	2.44	1.92	1.52	0.38
10	2.31	4	58	2.31	3.32	2.42	1.89	1.18	0.87	0.38
11	3.94	7	56	3.94	5.32	4.12	3.30	2.57	1.92	1.00
12	2.66	5	53	2.66	3.79	2.78	2.21	1.50	0.58	0.69
13	1.93	4	48	1.93	3.34	2.15	1.05	0.49	0.08	0.00
14	1.44	3	48	1.44	2.42	1.52	0.89	0.43	0.19	0.00
15	1.29	3	43	1.29	2.14	1.26	1.01	0.36	0.00	0.00
16	1.95	5	39	1.95	2.96	1.95	1.60	0.87	0.33	0.00
17	0.94	3	31	0.94	2.12	0.59	0.30	0.12	0.11	0.00
18	1.06	4	27	1.06	2.31	0.76	0.32	0.14	0.12	0.00
19	0.86	5	17	0.86	2.01	0.53	0.15	0.01	0.12	0.00
	45.59	80	57	45.59	62.36	47.00	38.13	28.78	19.76	10.49

Suggested grade boundaries

Grade	5	4	3	2	1
Mark	55	43	33	24	15