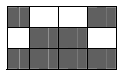
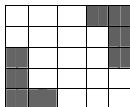


Paper 5521_01

No	Working	Answer	Mark	Notes
1	Cat 8 Dog 6 Fish 2 Hamster 4	8, 6, 2, 4	3	M1 for attempt to tally or one frequency correct in either column A1 for 1 frequency correct or all tallies correct in correct column A1 for all frequencies correct (accept if /20)
2		27, 35, 42, 67, 118	1	B1 cao
3	(a)	Diameter drawn	1	B1 for a diameter
	(b)	Right angle marked	1	B1 R marked correctly
	(c)	Rectangle drawn	1	B1 for a rectangle
4	(a)	40	1	B1 cao
	(b)	50	1	B1 cao
	(c)	3 full loaves 4 full loaves + 1 half loaf	2	B1 for 3 full loaves B1 for 4 full loaves + 1 half loaf
5	(a)	7252	1	B1 cao
	(b)	Three thousand and eighty six	1	B1 accept 3 thousand and eighty six (condone 0 hundred)
	(c)	4600	1	B1 accept 4600
	(d)	200	1	B1 for 200 or 2 hundred or 100 or hundred
6	(i)	Cube	2	B1 for 'cube' (accept 'cuboid') ignore spelling
	(ii)	Cylinder		B1 for 'cylinder' ignore spelling
7	5×100	500	2	B2 for 490 or 500 or 510 (B1 for either 5 or 5.0 or 100 seen)

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No	Working	Answer	Mark	Notes
8	(a)	8.4 cm or 84 mm	2	B2 allow ± 2 mm (B1 for 8.4 or 84, B1 for appropriate unit)
	(b)	37°	1	B1 allow $\pm 2^\circ$
9	(a)	Carbon black	1	B1 accept 'black carbon' accept 26%
	(b)	0.1(0)	1	B1 cao
	(c)	0.04	1	B1 cao
	(d)	$\frac{13}{50}$	2	M1 for $\frac{26}{100}$ A1 cao
10	(a)	97	1	B1 cao
	(b)	London Reading	1	B1 cao
	(c)	41 + 57 + 58 156	3	M1 for two of 41, 57, 58 M1(dep) for '41' + '57' + '58' A1 cao
11	(a)	3	1	B1 cao allow ± 0.2
	(b)	-5	1	B1 cao allow ± 0.2

Paper 5521_01				
No	Working	Answer	Mark	Notes
12	(a)	Centimetres (cm)	3	B3 (B1 for each correct answer) accept abbreviations
	(b)	miles	1	B1 cao
	(c)	litres (<i>l</i>) 300	1	B1 for No and '1500>1400' or '1.5>1.4'
		Reason	1	
13	(a)	Bars drawn	2	B2 for 3 bars correctly drawn (B1 for 2 bars correct)
	(b)	July and August	1	B1 oe
	(c)	20	1	B1 (Accept '4 to 24' oe)
	(d)	Temp's rising oe	1	B1 for reason
14	(a) (i)	$(-4, 3)$	2	B1 cao
	(ii)	$(2, -1)$		B1 cao
	(b) (i)	Point marked on grid	2	B1 for point marked at $(-4, -1)$ cao
	(ii)	$(-4, -1)$		B1 ft
15	(a)		1	B1 cao
	(b)		1	B1 cao

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No	Working	Answer	Mark	Notes
16	(a)	(Pat +) reason	1	B1 correct comment (Pat may be implied)
	(b) $21 \div 3$	7	1	B1 cao
17	(i)	S marked at 1	3	B1 for S within $\frac{1}{2}$ cm of 1
	(ii)	P marked at 0		B1 for P marked at 0 cao
	(iii)	Q marked at "1/3"		B1 for Q marked at $1/3 \pm 1$ cm use overlay
18	$6 + 6 + 3$ or $2\frac{1}{2} \times 6$	15	3	M1 for realizing 6 glasses in one bottle M1 for realizing 3 glasses in $\frac{1}{2}$ a bottle A1 cao (M2 for attempt to find $2\frac{1}{2} \times 6$) oe
19	15 and 16 parts shaded Alternative 1 $\frac{3}{4} = 0.75, \frac{4}{5} = 0.8$ Alternative 2 $\frac{3}{4} = \frac{15}{20}, \frac{4}{5} = \frac{16}{20}$	$\frac{4}{5}$ + reason	3	M1 for correctly shading 15 parts for $3/4$ M1 for correctly shading 16 parts for $4/5$ A1 (dependent on M2) for selection of $4/5$ Alternative 1 M1 for $\frac{3}{4} = 0.75$ M1 for $\frac{4}{5} = 0.8$ A1 (dep on M2) for selection of 0.8 or $\frac{4}{5}$ or $\frac{16}{20}$ Alternative 2 M1 for $\frac{3}{4} = \frac{15}{20}$ M1 for $\frac{4}{5} = \frac{16}{20}$ A1(dep on M2) for selection of $\frac{4}{5}$ or $\frac{16}{20}$

Paper 5521_01				
No	Working	Answer	Mark	Notes
20	(a)	-5 (-3) (-1) 1 3	2	B2 cao (B1 for any 2 or 3 correct)
	(b)	Line	2	B2 for line from $(-1, -5)$ to $(4, 5)$ (B1 ft for plotting at least 5 "points")
21	Shapes shaded on grid	6 tessellating shapes	2	B2 for fully correct with 5 or more additional shapes, no gaps (B1 for 4 shapes tessellating with at least one shape inverted, with or without the given shape ignore extras)
22	(a)	$\frac{7}{20}$	1	B1 for $\frac{7}{20}$ oe
	(b)	$\frac{9}{20}$	1	B1 for $\frac{9}{20}$
	(c)	0	1	B1 for 0, zero or nought ($\frac{0}{20}$ gets B0)
23	(a)	$4a$	1	B1 accept $4 \times a$, $a \times 4$, $a4$
	(b)	$12b$	1	B1 accept $12 \times b$, $b \times 12$, $b12$
	(c)	$2a + 6b$	2	B2 cao (B1 for $2a$ or $6b$ seen)
	(d)	$x(x-6)$	2	B2 cao (B1 for $x(ax+b)$ where a, b are numbers not equal to 0 or $x-6$ seen on its own, or as part of an expression)
24	(a)	40	1	B1 cao
	(b)	45	1	B1 for 42 – 48 accept $\frac{1}{4}$ hour
	(c)	80	2	M1 for 40×2 or $\frac{40}{30} \times 60$ or $40 \div \frac{1}{2}$ A1 cao NB $\frac{40}{45} \times 60$ gets M0 A0

Paper 5521_01				
No	Working	Answer	Mark	Notes
25	(a)	4560	1	B1 cao
	(b)	45.6	1	B1 cao
	(c)	2.4	1	B1 cao
26	$-7 - 3 = -10$ $2 \times -10 = -20$ $-20 \div 4$	-5	3	M1 for substitution of 2 and -7 into $p(q - 3)$ or sight of -20 or $-14 - 6$ M1dep for '-20' $\div 4$ A1 cao B1 SC for sight of -10 if M0 awarded
27	(a)	Reflection in y -axis	1	B1 cao
	(b)	Rotation by half turn about (0,0)	2	B2 cao (B1 for half turn not about (0,0).)
	(c)	Enlargement Scale factor 3 Centre (0,0)	3	B1 for 'enlargement' B1 for "scale factor 3" or 3 seen B1 for 'centre (0,0)'
28	(a)	Reason	1	B1 for 'The frequencies are nearly equal' oe
	(b)	$1 \times 26 + 2 \times 26 + 3 \times 23 + 4 \times 25 = 247$ $247/100$	3	M1 for fx (attempting at least 2 relevant products) M1 for $\sum fx \div 100$ A1 2.47 cao

Paper 5521_01				
No	Working	Answer	Mark	Notes
29	$5 \times 5 \times 6$	150	4	<p>M1 for attempt at 1 division (e.g. $40 \div 8$), may be implied by marks or number on one edge of diagram or by 5 or 6 seen</p> <p>M1 for attempt at 3 divisions ($40 \div 8$, $40 \div 8$, $60 \div 10$), may be implied by marks or numbers on diagram or by 5,5 and 6 seen.</p> <p>M1 (dep on 1st M1) for “5” × “5” × “6” A1 cao</p> <p>Alternatively M1 for $40 \times 40 \times 60$ or $8 \times 8 \times 10$ or 96000 or 640 seen M1 for $40 \times 40 \times 60$ and $8 \times 8 \times 10$ or 96000 and 640 seen M1 (dep on 1st M1) for “$(40 \times 40 \times 60) \div (8 \times 8 \times 10)$” A1 cao</p> <p>SC:B1 for dividing area of one carton face by area of corresponding box face if M0</p>