FFX 4-5 Maths Revision Answers								
Α	Numbers & the number	Answer	Mark	Criteria				
1(a)	To decrease 60 by 32%	<u>60 x 0.68</u>	1	1				
1(b)	Choose a different calculation Write a question	<ul> <li>60 x 0.32 (What is 32% of 60 OR What is 60 decreased by 68%?)</li> <li>60 x 1.32 (What is 60 increased by 32%?)</li> </ul>	1 Any one	1				
В	Calculating		Mark	Criteria				
2	Multiplier for 12% decrease	625 x <b>0.88</b> = 550	1	2				
3	Multiply the fractions Divide the fractions	$     \begin{array}{r}         1 \frac{2}{5} \times \frac{2}{3} \\         \frac{7}{5} \times \frac{2}{3} \\         \frac{14}{15} \\         1 \frac{2}{5} \div \frac{2}{3} \\         \frac{7}{5} \times \frac{3}{2} \\         21     \end{array} $	1	3				
4	Estimate <u>41.4 x 18.21</u> 0 18	$\frac{\overline{10}}{2\frac{1}{10}}$ $\frac{40 \times 20}{0.2} = \frac{800}{0.2} = \frac{8000}{2} = \frac{4000}{2}$	1	4				
5	Work out: <u>34.2 X 6.08</u> 2.45 x 13.4	<u>6.333719159</u>	1	5				
С	Algebra		Mark	Criteria				
6	Expand (x - 4) <sup>2</sup>	(x - 4)(x - 4) x <sup>2</sup> - 4x - 4x + 16 = <u>x<sup>2</sup> - 8x + 16</u>	1 1	6				
7	Solve: $5x + 6y = 9$ x - $2y = 5$ (x3)	5x + 6y = 9 3x - 6y = 15 Add: 8x = 24 <u>x= 3</u> Substitute: 15 + 6y = 9 y = -1	1	7				
8	Solve $4x + 2 \le 2(x + 3)$	$4x + 2 \le 2x + 6$ $2x + 2 \le 6$ $2x \le 4$ $x \le 2$	1	8				
	Represent on number line							
9	Make q the subject of the formula P = 2q + 10	P = 2q + 10 2q + 10 = P (-10  from each side) $2q = P - 10  (\div 2)$ $q = \frac{P - 10}{2}$	1	9				

10	6, 9, 14, 21, 30,	1 <sup>st</sup> difference : 3, 5, 7, 9		10
	Find nth term	2 <sup>nd</sup> difference: 2		
		$n^2 \cdot 1 \ 4 \ 9 \ 16 \ 25$		
		Then $(+5)$ from $n^2$ gives 6 9 14 21 30		
		So nth term $T(n) = n^2 \pm 5$		
			2	
	Table of values for:			
11	$y = \chi^3 + x$	0 10	1	11
	Graph	Smooth 'S' shape curve	1	
		passing through -1 and 0 on x-axis	L	
-	Change Crease and Massim		Maula	Cuitouio
D 12	Snape, Space and Measure	$a^2 a^2$	IVIARK	Criteria
12	the triangle	8-3	1	12
				12
		-55 1/55 - 7 (m	1	
13	Find total surface area of	Front/back = $2(4x3 \div 2) = 12 \text{ cm}^2$		
15	triangular prism	3 Rectangles = $(7x5)+(4x7)+(3x7) = 84$ cm <sup>2</sup>	1	13
		TSA = $\frac{12 \text{ cm}^2 + 84 \text{ cm}^2 = 96 \text{ cm}^2}{12 \text{ cm}^2 + 84 \text{ cm}^2 = 96 \text{ cm}^2}$	1	
14	3 missing values from 1.5	4cm 40 <sup>0</sup>		
	enlargement	12cm	3	14
15	Locus equidistant from			15
	AD and CD		1	10
16	a) minimum	<u>5.5 m</u>	1	16
	b) maximum	<u>6.5 m</u>	1	
17	Work out density of	Density = Mass ÷ volume		17
	cheese	$= 480g \div 400 \text{ cm}^3$	1	
		$= 1.2 \text{ g/cm}^{3}$		
E	Data Handling		Mark	Criteria
18	Criticise questionnaire			18
	a) ask series of	Restricted to one group of pupils(biased) -small sample	1	
	questions	Take a random sample from a range of classes	1	
	select			
	c) Ensure	Response boxes	1	
	reliable response			
19	True or false statements	True – Canada range = 30: Europe range = 40	1	10
1.5		True	1	19
		False – Some >30 recorded in European cities	1	

20	a) Modal class	40 < A ≤ 60		1	20
		Mid class interval	Totals		
		5	5 x 38 = 190		
		17.5	17.5 x 36 = 630		
		32.5	32.5 x 30 = 975		
		50	50 x 46 = 2300	1	
			Total = 4095		
		Est mean = 4	4095 ÷ 150 = <mark>27.3cm²</mark>		
	b) Estimate mean			1	
21	a) Team A Range	19-2 = <b>17</b>		1	21
	b)Team B Range	19-7 = <mark>12</mark>			
	a) Ieam A Mean	105÷9=11.6666		1	
	b) I eam B Mean	111÷9=12.3			
	Best Team	Team B because lower range so more consistent		1	
	Destricum	AND bigger	-		
22	Is the dice fair	In 50 throws you should expect $\frac{1}{6} \times 52 \approx 8$ or 9 21 sixes would suggest biased but the more trials			22
				1	
		the more re	liable the outcome		
23	Plot 2 points	(50,1.6) and	1	23	
	Correlation	Positive		1	
				1	
	iviother's leg length 55cm	Birth weight	t of her baby ape ~ <u>1.65Kg</u>		