

Schedule for common paper

Number

Total 110	Achieved 12 X4=48	Merit 5X6=30	Excellence 4X8= 32	Notes
Q1				Criteria to pass discuss N and S
a	1800			
b	\$174			
c		Pay rate 174/8 = 21.75 hr	M and Earnings shown 21.75X10X5 = \$1087.50 ( both answers needed)	
d		$\frac{2}{3} \times 54 = 36$ mins		
e			$\frac{1}{2} \times 300 = 150$	
f	2 trays = 24 muffins	$80/24 = 3.33333$ trays or rounded	4 lots of cooking = 120 minutes	
Q2				
a	15/100 or equivalent			
b		\$ 130.50 working shown or its ( A)		
c		$5000/130.5=38.3$	M Plus 39 weeks	

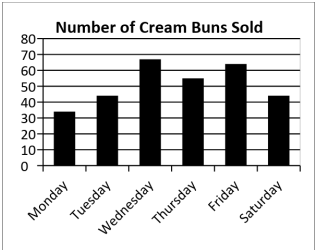
d		$5000 \times 0.03 = 150$	After 1 year = 5150 $5150 + 154.50$ After 2 years 5304.50 ( both required)	
Q3				
(a)	9	Merit only if the clear working steps shown		
(b)	4	Merit only if the clear working steps shown		
(c)		Half Litre = 2 cups	2 cups = four halves Need five half cups, so not enough	
Q4				
		Basketball association gives $0.15 \times 19500 = \$2925$ Or community grant gives $1/10 \text{ th } \times 19500 = \$1950$	Amount need to raise = $19500 - 2925 - 1950 - 2500 = 12125$ Profit per pie = \$1.50 $12125 / 1.50 = 8083.3$ Need to sell 8084 pies must have communication in each step	
Q5				
(a)	-27	27		
(b)	2			
(c)	Part answer	11		
(d)	32	-32		
(e)	Part answer	Judgement call	22	
(f)	Part answer	Judgement call	13	

**Algebra and Patterns**

Algebra and Patterns				
<b>Q1</b>				
(a)		$5x + 5y$		
(b)	$72w$			
(c)		$7w + z$		
(d)		$p^3$		
(e)		$y^3$		
(f)			$54z^2$	
(g)			$15f^7$	
<b>Q2</b>				
(a)	2 just the answer	With correct working steps $4 \times 2 - 6 = 8 - 6 = 2$		
(b)			39.27	
<b>Q3</b>				
(a)	$3x + 12$			
(b)			$w^2 + 5w$	
(c)		$10k - 8 + 8k - 10$	$18k - 18$	

Q4				
(a)	$x = 7$			
(b)	$w = 5$			
(c)		$7x = 28$ $x = 4$		
(d)		$x - 4 = 3$ $x = 7$		
Q5				
(a)		$C = 50 + 15h$		
(b)		\$95		
(c)			$140 = 50 + 15h$ $h = 6$ 6 hours	
Q6				
(a)	$4(x + 8)$			
(b)		$8y(y - 7)$		
(c)			$4x^2y(x^4 - 12y^2)$	
Q7				

		$3x + 3x + x + x = 14$ $8x = 16$ $x = 2$	Rectangle is 2 cm by 6 cm and the area is $12\text{cm}^2$	
Q8				
(a)	Correctly drawn pattern with an extra two matches added to the right-hand side.			
(b)	3, 5, 7, 9, 11, 13			
(c)		$M = 2P + 1$		
(d)		41		
(e)			$79 = 2P + 1$ $P = 39$ Pattern 39	
Q9				
(a)	Correctly plotted points			
(b)		23		
(c)		$B = 1.5w + 8$		
Statistics				

Q1				
(a)	Wednesday			
(b)		51.3 (1dp)		
(c)	44			
(d)		33		
(e)	 <p><b>Graph must have a title and axis labels</b></p>			
Q2				
(a)		<p>The pies sales were higher in the winter months than the summer month. The highest month of sales was July with over 7000 pies sold. This is in the middle of winter. The lowest was January, with around 5250. This is in the middle of summer. The graph shows a pattern of sales</p>		

		increasing from the start of the year, peaking in July and the decreasing as the year continue.																																						
(b)		The graph vertical scale does not start at zero.	If it started at zero the differences in the sales per month would not look as big.																																					
Q 3																																								
(a)		<table border="1"> <thead> <tr> <th></th> <th>White bread</th> <th>Brown bread</th> </tr> </thead> <tbody> <tr> <td>Lowest Value</td> <td>229</td> <td>238</td> </tr> <tr> <td>Lower Quartile</td> <td>258</td> <td></td> </tr> <tr> <td>Median</td> <td>279.5</td> <td>259</td> </tr> <tr> <td>Upper Quartile</td> <td>286</td> <td>267</td> </tr> <tr> <td>Highest Value</td> <td>291</td> <td>270</td> </tr> </tbody> </table>		White bread	Brown bread	Lowest Value	229	238	Lower Quartile	258		Median	279.5	259	Upper Quartile	286	267	Highest Value	291	270	<table border="1"> <thead> <tr> <th></th> <th>White bread</th> <th>Brown bread</th> </tr> </thead> <tbody> <tr> <td>Lowest Value</td> <td>229</td> <td>238</td> </tr> <tr> <td>Lower Quartile</td> <td>258</td> <td>251.5</td> </tr> <tr> <td>Median</td> <td>279.5</td> <td>259</td> </tr> <tr> <td>Upper Quartile</td> <td>286</td> <td>267</td> </tr> <tr> <td>Highest Value</td> <td>291</td> <td>270</td> </tr> </tbody> </table>		White bread	Brown bread	Lowest Value	229	238	Lower Quartile	258	251.5	Median	279.5	259	Upper Quartile	286	267	Highest Value	291	270	
	White bread	Brown bread																																						
Lowest Value	229	238																																						
Lower Quartile	258																																							
Median	279.5	259																																						
Upper Quartile	286	267																																						
Highest Value	291	270																																						
	White bread	Brown bread																																						
Lowest Value	229	238																																						
Lower Quartile	258	251.5																																						
Median	279.5	259																																						
Upper Quartile	286	267																																						
Highest Value	291	270																																						
(b)			<p><i>White Bread</i></p> <p><i>Brown Bread</i></p> <p>220      240      260      280      300</p> <p><i>White vs Brown sandwiches sold</i></p>																																					

(c)		<p>The median of white is 279.5 which is higher than brown. So more white sandwiches are sold.</p> <p>or</p> <p>Any other simple statement comparing points on the graph.</p>	<p>The median number of brown bread is 259, which is only one away from the lower quartile of the white bread. The median for brown is nearly below <math>\frac{3}{4}</math> of the white box. Therefore we could nearly conclude that more white sandwiches are sold than brown.</p> <p>and/or</p> <p>There is more variation in the number of white sandwiches sold each day compared to brown. The white graph is close to double the length of the brown graph.</p>	
Q4				
(a)	Ken should stop selling the carrot muffins because they were the least popular selling muffins. I know this because the segment of the pie graph is the smallest.			
(b)		$\frac{95}{360} \times 500 = 131.9$ therefore 132.		