

Schedule for common paper Year 9 Exam 2019

Number				
Total	AT	ABOVE	BEYOND	
Q1				
(i)	-48			
(ii)	18			
Deleted				
(iii)	-16	16		
(iv)		-29		
(v)			51	
Q2				
(a)	18 degrees			
(b)	212 students			
(c)	60 mins			
(d)	10.5 hrs a day	\$1496.25		

(e)		$\frac{2}{5} \times 10.5 = 4.2\text{hrs}$	$4.2 \times 60 = 252 \text{ mins}$	
(f)	$\frac{4}{12}$	$\frac{4}{12} \times 1296$	432	
(g)		702 people	Any correct whole number of buses Eg 15 forty eight seater or 14 X 48 and 1X42 or 12X48 and 3X42	
Q3				
(a)	0.125			
(b)	80			
(c)	82			
(d)		\$28529.15		
(e)	Students raise \$19200	College saves \$375 000 Grant equals \$9600	School savings $\frac{1}{6} \times 750,000 \times 3 = \$375,000$ MOE : \$1.2 million Students : $640 \times 30 = \$19,200$ Lotteries : $0.5 \times 19,200 = \$9,600$ Total $375,000 + 1,200,000 + 19,200 + 9,600$ $= \$1,603,800 \text{ income.}$ No, the College will not have enough money to cover \$1.65 million as they will only have \$1.6038 million. Must show all working that is set out in a logical manner	

Q4				
(a)	0.90, 0.204, 0.23, 0.256, 0.301, 0.31			
(b)	1.4			
Q5				
(a)	$\frac{-1}{15}$			
(b)	$\frac{28}{40} = \frac{7}{10}$			
(c)		1920		
(d)		$\frac{23}{28}$		
Algebra and Patterns				
Q1				
(a)	4 tables side by side			
(b)	21,26			
(c)		$C = 5T + 1$		
(d)		51		

(e)		24, must have used the equation to work this out.		
Q2				
(a)	Points correctly plotted and joined using a ruler .			
Q3				
(a)		\$25		
(b)		Cost \$20 for the supplies to make the soap.		
(c)		$P = 1.5N - 20$ or $P = \frac{3}{2}x - 20$		
(d)	One correct point	Three correct point Eg Both lines start below the x axis		
(e)			<p>The Cinnamon line starts lower at -30 compared to Lavender line that starts at -20.</p> <p>Same profit when 20 bars of soap are sold.</p> <p>The Lavender gradient of 1.5 is less than the Cinnamon gradient of 2, this makes the Cinnamon line steeper. Cinnamon makes more profit per soap.</p>	

Q4				
(a)		$C = 1.10b + 45$		
(b)		\$100		
(c)	95.45	95bars		
Q5				
(a)	2			
(b)	60cm	$60cm^2$		
Q6				
(a)	$2x + 6y$			
(b)	30p			
(c)	w^4			
(d)		x^4		
(e)	$42d^2$			
(f)			$-20y^{11}$	

Q7				
(a)	$5y - 35$			
(b)		$x^2 + 20x$		
(c)	$40x + 40$ or $-6x - 3$	$40x + 40 - 6x - 3$	$34x + 37$	
Q8				
(a)	$x = 18$			
(b)		$x = 150$		
(c)		$5x = 15$	$x = 3$	
(d)		$3x = 18$	$x = 6$	
Q9				
(a)	$6(y - 4)$			
(b)		$2x(2x^2 - 15)$		
(c)		$4x^2y^2(2x^4 - 9y^3)$		

Q10.			$J=3d-10$ $3d-10=80$ $3d=90$ $d=\$30$ Dress costs \$30	
Statistics				
Q1				
(a)	Football, Basketball, Netball, Hockey, Rugby			
(b)		The axis does not start at zero, it starts at 13. This makes the difference between boys and girls look bigger than it actually is.		
Q2)				
(a)	77			
(b)		79.2		

(c)	82.5									
(d)			Because of the low score of 24, the mean is low. The Median is not affected by the score of 24. Therefore the Median is a better reflection of points scored. Most scores are well above 24.							
Q 3										
(a)	2016, 2017									
(b)		$\frac{60}{360} \times 78 = 13$ students. Or $\frac{1}{6} \times 78 = 13$								
Q4			The number of sports injuries is higher in the winter months and lower in the summer months. Its seasonal							
Q5										
(a)			<table border="1"> <tr> <td></td> <td>Diamond</td> <td>Sapphire</td> </tr> <tr> <td>Lowest Value</td> <td>8</td> <td>7</td> </tr> </table>		Diamond	Sapphire	Lowest Value	8	7	
	Diamond	Sapphire								
Lowest Value	8	7								

			<table border="1"> <tr> <td>Lower Quartile</td> <td>14</td> <td>9</td> </tr> <tr> <td>Median</td> <td>19.5</td> <td>11.5</td> </tr> <tr> <td>Upper Quartile</td> <td>23</td> <td>13.5</td> </tr> <tr> <td>Highest Value</td> <td>30</td> <td>23</td> </tr> </table>	Lower Quartile	14	9	Median	19.5	11.5	Upper Quartile	23	13.5	Highest Value	30	23	
Lower Quartile	14	9														
Median	19.5	11.5														
Upper Quartile	23	13.5														
Highest Value	30	23														
(b)			Box/Whisker Diagram													
(c)		.	The median of Diamond is 19.5 which is higher than Sapphires of 11.5, so Diamonds scored more points.													
			or													
			<p>Any other simple statement comparing points on the graph.</p> <p>There is more variation in the number of points the Diamonds scored compared to Sapphires because the Diamonds box and whisker graph is longer than the Sapphires.</p>													
(d)			<p>There is no information at winning or losing, only points scored. The Diamonds had higher points, but could have still lost every game.</p> <p>75% of the time Diamonds scored more goals than Sapphires</p>													

			<p>Diamonds scored highest goals of 30</p> <p>IQR: Diamonds is 9 and Sapphires is 4.5 Bigger spread in Middle 50% for Diamonds.</p>	
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Strand	AT (4)	ABOVE (6)	BEYOND (8)	Total
Number	$12 \times 4 = 48$	$6 \times 6 = 36$	$5 \times 8 = 40$	124
Algebra	$11 \times 4 = 44$	$16 \times 6 = 96$	$6 \times 8 = 48$	188
Statistics	$4 \times 4 = 16$	$3 \times 6 = 18$	$6 \times 8 = 48$	82
Grand Total	108	150	128	394

AT = 40% - 60%

135 - 235

ABOVE = 61% - 84%

236 - 331

BEYOND = +85%

≥ 332