

Schedule for common paper

Number

Total	AT	ABOVE	BEYOND	
<b>Q1</b>				
(i)	-48			
(ii)	18			
(iii)	$\frac{-1}{15}$			
(iv)	-16	16		
(v)		-29		
(vi)			51	
<b>Q2</b>				
(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 17 forty two seater or 15 forty eight seater.	
Q3				
(a)	0.125			
(b)	80			
(c)	82			
(d)		\$28529.15		
(e)	Students raise \$19200	College saves \$125 000 Grant equals \$9600	$125,000+1,200,000+19,200+9,600 = \$1,353, 800$ No, the College will not have enough money to cover \$1.65 million as they will only have \$1.3538 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			

<b>Q5</b>				
(a)	$\frac{-1}{15}$			
(b)	$\frac{28}{40} = \frac{7}{10}$			
(c)		1920		
(d)		$\frac{23}{28}$		
<b>Algebra and Patterns</b>				
<b>Q1</b>				
(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.		
<b>Q2</b>				

(a)	Points correctly plotted and joined using a ruler.			
Q3				
(a)		\$25		
(b)		Cost \$20 for the supplies to make the soap.		
(c)		$P = 1.5N - 20$		
(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>Both lines have the same gradient.</p> <p>The Lavender gradient of 1.5 is less than the Cinnamon gradient of 2, this makes the Cinnamon line steeper.</p>	
Q4				
(a)		$C = 1.10b + 45$		
(b)		\$100		

(c)	95.45	95		
Q5				
(a)	2			
(b)		60cm squared		
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)	18			
(b)		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.				

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. Therefore the Median ia a better reflection of points scored.	
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.																			
Q5																						
(a)			<table border="1"> <thead> <tr> <th></th> <th>Diamond</th> <th>Sapphire</th> </tr> </thead> <tbody> <tr> <td>Lowest Value</td> <td>8</td> <td>7</td> </tr> <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> </tbody> </table>		Diamond	Sapphire	Lowest Value	8	7	Lower Quartile	14	9	Median	19.5	11.5	Upper Quartile	23	13.5	Highest Value	30	23	
	Diamond	Sapphire																				
Lowest Value	8	7																				
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	
			Any other simple statement comparing points on the graph.  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.	
(d)			There is no information at winning or losing, only points scored. The Diamonds had higher points, but could have still lost every game.	

Strand	AT (4)	ABOVE (6)	BEYOND (8)	Total
Number	$13 \times 4 = 52$	$6 \times 6 = 36$	$5 \times 8 = 40$	128
Algebra	$11 \times 4 = 44$	$16 \times 6 = 96$	$5 \times 8 = 40$	180
Statistics	$4 \times 4 = 16$	$3 \times 6 = 18$	$6 \times 8 = 48$	82

Grand Total	112	150	128	390
-------------	-----	-----	-----	-----

**AT** = 45% - 65%

**175.5 - 253.5**

**ABOVE** = 66% - 84%

**257.5 - 327.6**

**BEYOND** = +85%

**≥ 331.5**