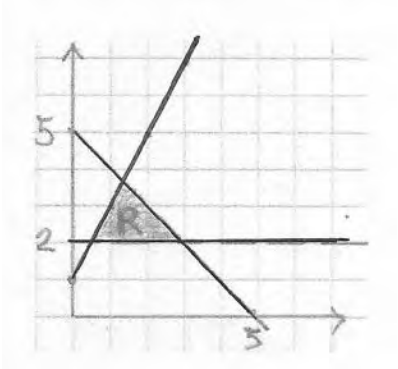
Question	Working	Answer	Mark	Notes	Sub-Total	Total
10	19.45 or 19.35 or 2.35 or 2.45		B1			
	(*b* =) 19.45 – 2 × 2.35		M1	Or for $UB_1 - 2\times LB_2$ **or** $UB_1 = 2\times LB_2 + b$ where $19.4 < UB_1 \le 19.5$ & $2.3 \le LB_2 < 2.4$		
		14.75	A1			3
11	$3(x^3 + a) = 4(c - x^3)$ oe		M1			
	$3x^3 + 4x^3 = 4c - 3a$ or $3a - 4c = -4x^3 - 3x^3$		M1	Collecting *x* terms on one side and other terms on the opposite side		
		$\sqrt[3]{\frac{4c-3a}{7}}$	A1	oe. Do not ISW **NB** A0 for $\pm\sqrt[3]{\frac{4c-3a}{7}}$ $3\sqrt{\frac{4c-3a}{7}}$		3
12	$5^{3k+4} = 125$		M1	Allow $\frac{750}{6}$		
	$3k + 4 = 3$		M1	Dep first M1 Writing "125" as a power of 5 and equating powers, 0.33(0.33…)		
		$-\frac{1}{3}$	A1	cao		3
13	$\left[\frac{BE^2}{9.6^2} =\right]\left(\frac{9}{16}\right) or \left(\frac{27}{21+27}\right)$ oe		M1	For $\frac{9}{16}$ or $\frac{27}{21+27}$ **Alternate** $h = 10$, $0.5BE \times x = 27$		
	$\left[BE =\right]\sqrt{\frac{9}{16}} \times 9.6$		M1	**Alternate** $(9.6 + BE)(10 - x) = 42$		
		7.2	A1			3

Question	Working	Answer	Mark	Notes	Sub-Total	Total
14 (a)(i)	$y = 2$		B1	correct line	1	
(ii)	$x + y = 5$		B1	correct line (condone incorrect labelling)	1	
(iii)	$y = 2x + 1$		B1	correct line	1	
(b)		**R** correctly placed	B1	Do not award if lines incorrect Ignore labelling of lines	1	4
15	$\frac{1}{5}\times\left(\frac{120}{5}\times 3\right)(=14.4(0))$		M1	or (Barry:) $\frac{3}{5}\times\frac{1}{5}(=\frac{3}{25})$		
	$0.35\times\left(\frac{120}{5}\times 2\right)(=16.8(0))$		M1	or (Carlos:) $\frac{35}{100}\times\frac{2}{5}(=\frac{14}{100}=\frac{7}{50})$		
	$\frac{'14.4'+'16.8'}{120}=\frac{"31.2"}{120}$		M1	Dep on M2 or for $'\frac{3}{25}'+'\frac{7}{50}'$		
		$\frac{13}{50}$ or 0.26	A1			4

Question	Working	Answer	Mark	Notes	Sub-Total	Total
16 (a)		$6w^5y^8$	B2	B1 for 2 terms correct as part of a product. Do not ISW	2	
(b)		$3a^2c$	B2	B1 for 2 terms correct as part of a product, allow $3a^2c^1$. Do not ISW	2	4
17	$OBA = 52°$		M1	may be marked on diagram		
	$AOB = 76°$ or $BAC = 128°$		M1	may be marked on diagram must be identified as correct angles		
		14	A1			
	e.g. angle between **tangent** and **radius** = **90°** base angles/radii equal / isosceles triangle **Angle sum** of **triangle** Angle sum of **triangle** =**180** **Angle sum** of **straight line** Angle sum of **straight line** = **180**		B1	for 2 correct reasons for method used		4
18 (a)	$\begin{pmatrix}-4\\2\end{pmatrix}+\begin{pmatrix}-2\\6\end{pmatrix}$ or $\begin{pmatrix}-2\\6\end{pmatrix}-\begin{pmatrix}4\\-2\end{pmatrix}$	$\begin{pmatrix}-6\\8\end{pmatrix}$	M1 A1	oe	2	
(b)	$\sqrt{"(-6)"^2+"8"^2}$		M1ft	ft part(a). Condone missing minus.		
		10	A1ft	ft part (a)	2	4