

Q1. (2018)

(A)

16(a)	2400×3.8 or $\frac{m}{3.8} = 2400$ or $\frac{m}{2400} = 3.8$	M1	oe equation allow mass for m allow any letter apart from v or d
	9120	A1	
	Additional Guidance		

(B)

16(b)	$\pi r^2 h = 3.8$ or $\pi \times 0.5^2 \times h$ or $0.25\pi h$ or $[0.78, 0.79]h$ or $3.8 \div (\pi \times 0.5^2)$ or $3.8 \div 0.25\pi$ or $3.8 \div [0.78, 0.79]$	M1	oe eg $\pi r^2 = \frac{3.8}{h}$
	$[4.8, 4.841]$	A1	
	Additional Guidance		
	$\pi 0.5^2 h$		M1

Q2. (2020)

Q	Answer	Mark	Comments
26	24.5 or 25.5 or 7.45 or 7.55	B1	accept 25.49 for 25.5 accept 7.549 for 7.55
	$30 \times$ their 25.5 or 765 or $20 \times$ their 7.55 or 151	M1	their 25.5 must be (25, 26] their 7.55 must be (7.5, 7.6]
	$30 \times$ their 25.5 + $20 \times$ their 7.55 or 765 + 151 or 916	M1dep	oe eg $920 - 30 \times$ their 25.5 $- 20 \times$ their 7.55 their 25.5 must be (25, 26] their 7.55 must be (7.5, 7.6]
	25.5 and 7.55 and 916 and Yes	A1	oe eg 25.5 and 7.55 and -4 and Yes
	Additional Guidance		
	Only using lower bounds can score a maximum of B1M0M0A0		
	Condone 25.50 for 25.5 etc		
	916 and Yes without both 25.5 and 7.55 is A0 but the B mark and M marks are possible eg $30 \times 25.5 + 20 \times 7.54 (= 915.8) = 916$ Yes		B1M1M1A0
	916 and Yes with no working		Zero
	Yes can be implied eg1 $30 \times 25.5 + 20 \times 7.55 = 916$ which is less than 920 eg2 $30 \times 25.5 + 20 \times 7.55 = 916$ so she can		B1M1M1A1 B1M1M1A1