	Fun Size Can	Rubric	
		Points	Section points
1.	Gives correct answers: **15.9 - 16.0 cm** and **2.5 - 2.6 cm**.	2 x 1	
	Shows correct work such as: Substitutes in the formula $V = \pi r^2 h$ to find the height of the can with radius 2cm and Substitutes in the formula $V = \pi r^2 h$ to find the height of the can with radius 5cm.	1	
	States that the can with radius 2 cm is **easy to hold** or **unstable** or **tall** and **thin:** the can with radius 5 cm is **difficult to hold** or **drink from** or **short** and **fat** or equivalent.	1	
			4
2.	Gives correct answers: **224.9/226.2//72π** cm² **235.6/239/75π** cm²	1	
	Uses the formula $S = 2\pi r^2 + 2\pi rh$ to find the surface areas of cylinders with radii 2cm and 5cm.	1	
			2
	Decides to find the surface area of other cylinders. Correctly finds the height and surface area of a cylinders with radii between 2 cm and 5 cm. **r = 3,** **h = 7.1/7,** **A ≈ 190.4** cm² **If graph drawn allow** **r = 4,** **h = 4.0,** **A ≈ 201.1** cm² **point for values plotted.**	1	
	States that from these results it appears that the **minimum** surface area is when the radius is **about 3 cm**.	1	
	Finds surface areas of cylinders with radii around r = 3. e.g. **r= 2.5, h = 10.2, A = 199.5** cm² Allow a point for each correct area **r= 3.5, h = 5.2, A = 191.3** cm²	1	
	States that from calculations, or a graph of r/A (or h /A), the **minimum surface area** has radius **3 cm**, height **7 cm.**	1	
			4
	Total Points		**10**