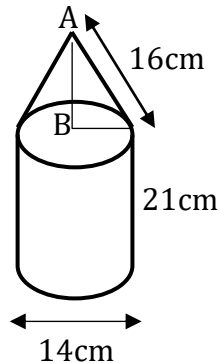


29. A model of a rocket is shown below. It consists of a cone on top of a cylinder with dimensions shown.



- a) Calculate the length of AB, the height of the cone.
 b) Calculate the volume of the model. Round your answer to 3 significant figures.

$$[\text{Volume of cone} = \frac{1}{3}\pi r^2 h]$$

30. Distances between several towns have been recorded in miles. They are shown below:

36	39	57	49	43
29	33	40	47	55
43	50	53	41	30

Calculate the semi-interquartile range of these distances.

31. Sketch the graph of $y = 3(x - 2)^2 - 4$

On your sketch, show clearly the coordinates of the turning point and the point of intersection with the y -axis.