

EXERCISE 1

1. A vertical cylinder of height h and radius r is shown in the diagram below. The cylinder is divided into four equal horizontal sections by three horizontal planes. The top surface of the cylinder is shaded.



Section	Area	Volume	Surface Area	Centroid
1	πr^2	$\frac{1}{4} \pi r^2 h$	πr^2	$\frac{1}{8} h$
2	πr^2	$\frac{1}{4} \pi r^2 h$	$2\pi r^2$	$\frac{3}{8} h$
3	πr^2	$\frac{1}{4} \pi r^2 h$	$2\pi r^2$	$\frac{5}{8} h$
4	πr^2	$\frac{1}{4} \pi r^2 h$	$2\pi r^2$	$\frac{7}{8} h$

2. A vertical cylinder of height h and radius r is shown in the diagram below. The cylinder is divided into four equal horizontal sections by three horizontal planes. The top surface of the cylinder is shaded.

3. A vertical cylinder of height h and radius r is shown in the diagram below. The cylinder is divided into four equal horizontal sections by three horizontal planes. The top surface of the cylinder is shaded.



4. A vertical cylinder of height h and radius r is shown in the diagram below. The cylinder is divided into four equal horizontal sections by three horizontal planes. The top surface of the cylinder is shaded.