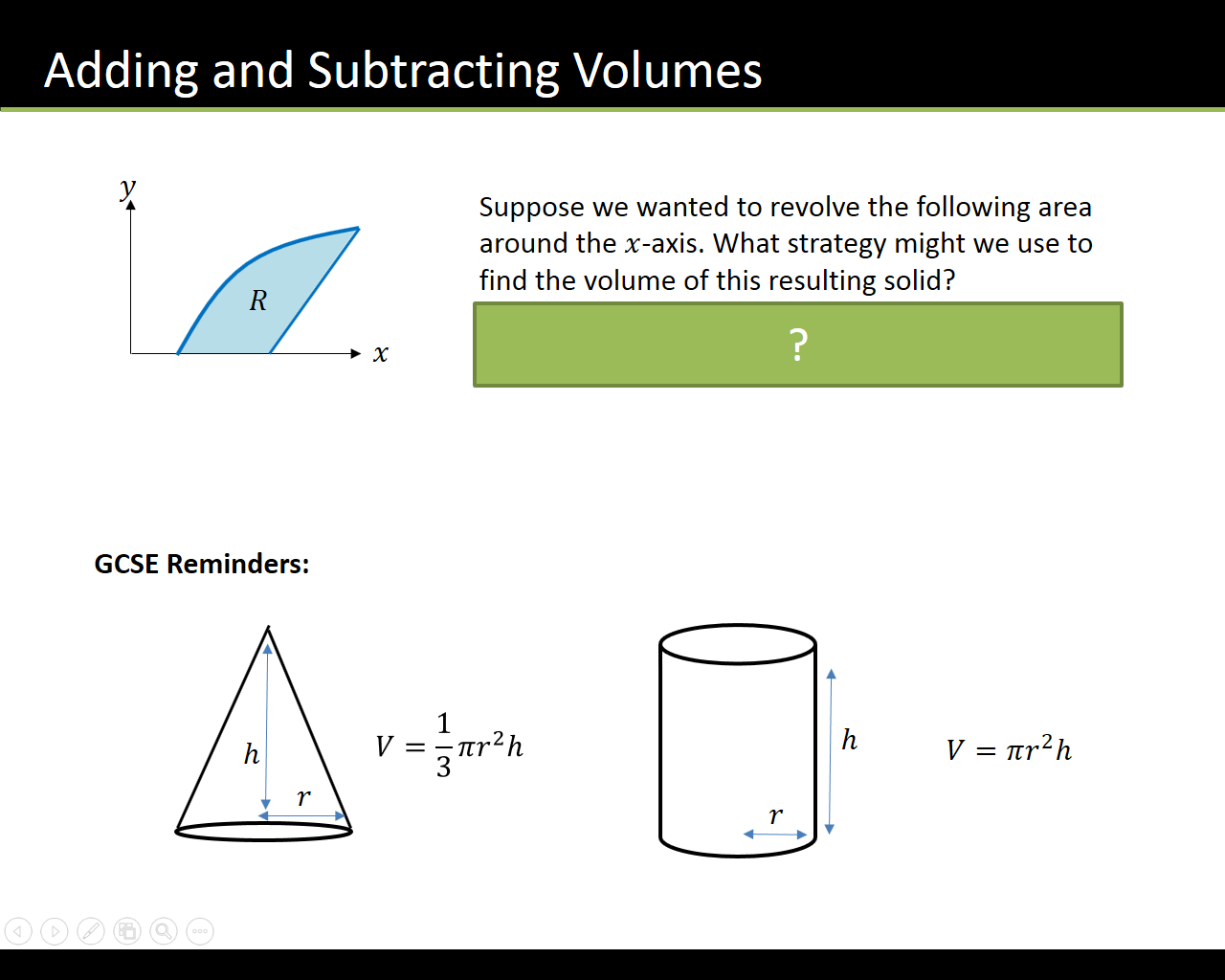
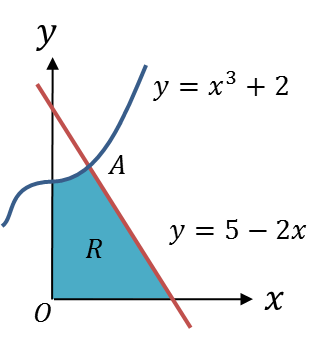
**Adding and Subtracting Volumes**

With more complex volumes you may need to consider compound areas or volumes of general shapes.



Example

The region is bounded by the curve with equation , the line and and -axes.

1. Verify that the coordinates of are .

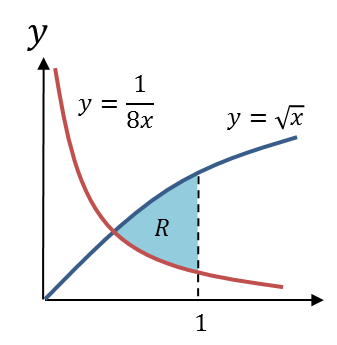
A solid is created by rotating the region about the -axis.

(b) Find the volume of this solid.

**Example**

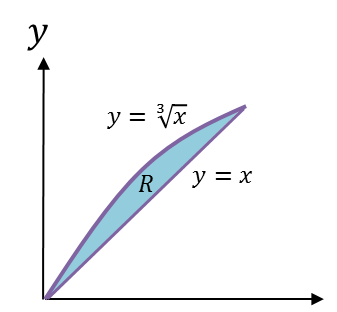
The diagram shows the region bounded by the curves with equations and and the line .

The region is rotated through about the -axis. Find the exact volume of the solid generated.



Test Your Understanding

The area between the lines with equations and , where is rotated about the -axis. Determine the volume of the solid generated.



Ex 5C Pg 81-83