

TeX code compiled with `\documentclass{beamer}` using the Amsterdam theme.

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\begin{document} \begin{frame} The region  $R$  is bounded by the curves  $y=x^3$   $y=8$   $x=0$  Sketch  $R$ . For the following rotational axes, set-up two integrals for the volume of the solid generated by revolving  $R$  about the indicated axis, one representing the washer method and one the cylindrical shells method. \begin{itemize} \item (a)  $x$ -axis. \item (b)  $y$ -axis. \item (c)  $y=5$ . \item (d)  $x=-2$ . \end{itemize} \end{frame} \begin{frame} The region  $R$  is bounded by the curves  $y=1+\sin(x)$   $y=1$   $x=0$   $x=2$  Sketch  $R$ . For the following rotational axes, set-up two integrals for the volume of the solid generated by revolving  $R$  about the indicated axis, one representing the washer method and one the cylindrical shells method. \begin{itemize} \item (a)  $x$ -axis. \item (b)  $y$ -axis. \item (c)  $y=-1$ . \end{itemize} \end{frame} \begin{frame} The triangular region with vertices  $(0,2)$ ,  $(1,0)$ , and  $(0,1)$  is rotated about the line  $x=4$ . Find the volume of the solid generated by this rotation. \end{frame} \begin{frame} Let  $B$  be the region bounded by the graphs of  $x=y^2$  and  $x=9$ . Sketch  $B$ . For each part below, find the volume of the solid that has  $B$  as its base if every cross section by a plane perpendicular to the  $x$ -axis is \begin{itemize} \item (a) a square. \item (b) a semicircle with diameter lying on  $B$ . \item (c) an equilateral triangle. \end{itemize} \end{frame} \begin{frame} Find the volume of a wedge cut out of a cylinder of radius  $r$  if the angle between the top and bottom of the wedge is  $\frac{\pi}{6}$ . \end{frame} \end{document}
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Permanent link:
https://www2.math.binghamton.edu/p/calculus/resources/calculus_flipped_resources/applications/5.3_cylindrical_shells_tex

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