2025/10/04 12:041/1

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

\begin{document} \begin{frame} Find the average value of each function on the given interval. \vskip 10pt $\left[0, 2\right] \times f(x) = 10x - x^2$ on the interval $[0, 2] \times f(x) = 15$ (theta) = 11 $\sec^2(\theta_4)$ on the interval $[0,\pi]$ \vskip 15pt \item $h(x) = 7 \cos^4(x)\sin(x)$ on the interval $[0,\pi]$ $\end{enumerate} \end{frame} \begin{frame} Consider the function $$f(x) = 3\sqrt{x}$$ \begin{enumerate}[a)]$ \item Find the average value \$f {\mbox{ave}}\$ of \$f\$ on the interval \$[0, 16]\$. \item Find all values \$c\$ such that $f {\mathbb S}$ same as the area under the graph of \$f\$. \end{enumerate} \end{frame} \begin{frame} Consider the function $f(x) = (x-5)^2$ \begin{enumerate}[a)] \item Find the average value $f(x) = (x-5)^2$ [4,7]\$. \item Find all values \$c\$ such that $f_{\text{wbox}}= f(c)$ \$. \item Sketch the graph of \$f\$ and, in the same picture, a rectangle whose area is the same as the area under the graph of \$f\$. \end{enumerate} \end{frame} \begin{frame} Consider the function $f(x) = 9 \sin(4x)$ \begin{enumerate}[a)] \item Find the average value $f {\mathbb S}$ of f on the interval $[- \]$. \pi]\$. \text{item Find all values }c\$ such that $f {\mathbb S}$ \item Sketch the graph of \$f\$ and, in the same picture, a rectangle whose area is the same as the area under the graph of \$f\$. \end{enumerate} \end{frame} \begin{frame} Find all numbers \$b\$ such that the average value of $\$\$f(x) = 7 + 10x - 9x^2\$\$$ on the interval \$[0, b]\$ is equal to 8. \vskip 65pt The velocity \$v\$ of blood that flows in a blood vessel with radius \$R\$ and length \$L\$ at a distance \$r\$ from the central axis is \$\$v(r) =\frac{ P}{4\eta L{ $R^2 - r^2$ }\$ where \$P\$ is the pressure difference between the ends of the vessel and \$\eta\$ is the viscosity of the blood. Find the average velocity (with respect to \$r\$) over the interval \$0 \leg r \leg R\$. \end{frame} \end{document}

From:

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 $https://www2.math.binghamton.edu/p/calculus/resources/calculus_flipped_resources/applications/5.5_average_textures.$

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