

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

There is one png image needed to compile slides:

51graph.png

```
\begin{document} \begin{frame} For each of the two regions described below, sketch the region enclosed by the
given curves. Decide whether to integrate with respect to x or y. Draw a typical approximating rectangle and label
its height and width. Then find the area. \vskip 10pt $$y = 2x + 3 \quad y = 13 - x^2 \quad x = -1 \quad x = 2$$
\vskip 35pt $$x = 45 - 5y^2 \quad x = 5y^2 - 45$$ \end{frame} \begin{frame} Sketch the region enclosed by the
given curves. Then find the area. \begin{enumerate}[a)] \item $$x = 6y^2 \quad x = 4 + 5y^2$$ \item $$y = 6
\cos(\pi x) \quad y = 12x^2 - 3$$ \pause \item $$y = 4 \cos(6x) \quad y = 4 \sin(12x) \quad x = 0 \quad x =
\pi/12$$ \item $$y = \sqrt{x} \quad y = \frac{1}{2}x \quad x = 25$$ \pause \item $$y = |3x| \quad y = x^2 -
4$$ \end{enumerate} \end{frame} \begin{frame} Two cars, A and B, start side by side and accelerate from rest.
The graphs of their velocity functions are given below. \begin{figure}[h]\centering{
\includegraphics[height=1.7in]{51graph.png}} \end{figure} \begin{enumerate}[a)] \item Which car is ahead at
time $a$? Explain. \item Interpret the area of the shaded region in physical terms. \item Which car is ahead after
$1.5a$ minutes? Explain. \end{enumerate} \end{frame} \begin{frame} Find the number $b$ such that the line $y
= b$ divides the region bounded by the curves $y = 4x^2$ and $y = 16$ into two regions with equal area.
\end{frame} \end{document}
```

From:

<https://www2.math.binghamton.edu/> - **Department of Mathematics and Statistics, Binghamton University**

Permanent link:

https://www2.math.binghamton.edu/p/calculus/resources/calculus_flipped_resources/applications/5.1_area_tex

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