The end the area of the regime enclosed by

$$y = x^{2}$$
 and $y = \sqrt{x}$.
Ef. Area = $\int_{0}^{1} ((\overline{x} - x^{2}) dx)$
 $= \left[\frac{2}{3}x^{3/2} - \frac{1}{3}x^{3}\right]_{0}^{1}$
 $= \frac{1}{3}xy$ units
3 Determine the area of the regime enclosed by
 $y = sinx$, $y = cosx$, $x = \frac{\pi}{2}$ and the y -axis
 $preview$ from Notesale.co.uk
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 $x = \pi/2$
 $\sqrt{1/4}$ $\pi/2$
Area = $\int_{1}^{\pi/4} (cos - sinx) dx + \int_{\pi/4}^{\pi/2} (sinx - cosx) dx$
 $= (sinx + cosx)_{0}^{\pi/4} + (-cos - sinx)_{\pi/4}^{\pi/2}$
 $= (\sqrt{2} - 1) + (\sqrt{2} - 1) = 2\sqrt{2} - 2i$
 $= 0.8284227$ by units

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