Salahaddin University-Erbil
College of Engineering
Department of Architectural Engineering
First Year Students
2nd Semester

Mathematics I
Application of definite integral (Ch.5)

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Area between curves:

Find the area bounded by $y = 2 - x^2$ and straight line $y = -x$

Find the area bounded by $y = 2x - x^2$ and $y = -3$ pts of intersection

Find the area bounded by $y + x = 3$ and $x = 3y - y^2$ pts of intersection

Find the area bounded by $y = \sin\frac{\pi x}{2}$ and $y = x$

Area between curves:

Ex.

Find the area bounded by $y = \sin x$, and $y = \cos x$ and y-axis

Ex.

Find the area bounded on right by $x + y = 2$, on left by $y = x^2$ and below by x-axis

Ex.

Find the area bounded on the $y = x + 2$ on left by $x = y^2$ and below x-axis