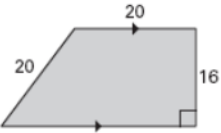


Unit 6 Outline – Area and Average Value

Tuesday 11/12	Today's Topic: Evaluating Riemann Sums
Warm-Up: Evaluate $\sum_{n=1}^4 [(n^2 + 1)0.5]$	
In-Class Examples: Handout	
Homework: Worksheet 51	

Wednesday 11/13	Today's Topic: Approximating Area using Riemann Sums
Warm-Up: Find the area of the trapezoid:	
	
In-Class Examples: 1) Approximate the area under the curve $f(x) = \sin x$ on $[0, \pi]$ using a Trapezoidal Approximation with 4 subintervals of equal width. Is this approximation an underestimate or an overestimate of the actual area?	
Homework: Worksheet 52	

Thursday 11/14	Today's Topic: Approximating Area using Riemann Sums – Table Problems
In-Class Examples: Notes Handout	
Homework: Worksheet 53	

Friday 11/15	Today's Topic: Exact Area Under a Curve
In-Class Examples: Ex. 1 $f(x) = 2x + 1; a = 0, b = 2$ Ex. 2 $f(x) = x^2 - 4; a = 2, b = 4$	
Ex. 3 $f(x) = 3 - x^2; a = -1, b = 1$ Ex. 4 $f(x) = 2x - x^2; a = 0, b = 2$	
Ex. 5 $f(x) = e^x; a = 0, b = 2$	
Homework: Worksheet 54	

Monday 11/18	Today's Topic: Area Between two curves about the x-axis (“top minus bottom”)
In-Class Examples: Notes Handout	
Homework: Worksheet 55	

Tuesday 11/19	Today's Topic: Area Between two curves about the y-axis (“right minus left”)
In-Class Examples: Notes Handout	
Homework: Worksheet 56	

Wednesday 11/20	Today's Topic: Average "Y" Value and Review
In-Class Examples: Ex. 1 Find the average value of $f(x) = 4 - x^2$ on $[0, 3]$. Ex. 2 Find the average value of $f(x) = x^2 - 1$ on $[0, \sqrt{3}]$.	
Homework: Worksheet 57	

Thursday 11/21	Today's Topic: Review for Test
In-Class Examples: Riemann Sums, Exact Areas, Average "Y" Value	
Homework: Worksheet 58	

Friday 11/22	Today's Topic: Riemann Sums, Areas, Average "Y" Value Test
In-Class Examples: Riemann Sums, Areas, Average "Y" Value	
Homework: Thanksgiving Break Assignment	