Chapter 7.2 Worksheet

Name

	Objectives	Rate your understanding of the objective				
Objective 1	Understand how to find a volume by	1	2	3	4	5
	integrating the area of a cross section.					
Objective 2	Calculate solids of revolution with the	1	2	3	4	5
	washer method.					
Objective 3	Calculate solids of revolution with the	1	2	3	4	5
	disk method.					

Warmup

Evaluate the following integrals. (By yourself)

1.
$$\int e^x \sin(x) dx$$

$$2. \int -\frac{\ln(x)}{x^2} dx$$

3.
$$\int_{2}^{3} -\frac{\sin(\ln(x))}{x} dx$$

Problems

These problems involve the disk method. You may reference Example 205 in your example packet. (By yourself)

1. Find the volume of a right cylinder with a radius of 5 and height of 10 using the disk method.

2.
$$\sum_{n=1}^{\infty} (-1)^n \frac{1}{n+7}$$

3.
$$\sum_{n=1}^{\infty} (-1)^n \frac{n+1}{n^2 + 7n - 1}$$

These problems involve the definition of the derivative. You may reference Example XXX in your example packet. (Groups)

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Self Quiz

(By yourself)

1. Find the general formula for the volume of a cone by writing and evaluating an integral using the disk method.

2. Find the general formula for the volume of a square pyramid by writing and evaluating an integral.

Reflection

	Objectives	Rate your	under	standin	g of the	e objective
Objective 1	Understand how to find a volume by	1	2	3	4	5
	integrating the area of a cross section.					
Objective 2	Calculate solids of revolution with the	1	2	3	4	5
	washer method.					
Objective 3	Calculate solids of revolution with the	1	2	3	4	5
	disk method.					

Study Skills:

- Remember to read through examples from the book BEFORE your professor goes over the section in class.
- After class read through the examples in your notes from that day and try to do the problems yourself (without looking at your notes).
- After class read through the examples from the book in the section you JUST covered and make sure you understand them.