

## Calculus Unit #7: Integration (Ch 6)

**Area and Volume** - I can find the area between curves and the volume of a solid of revolution.

| Day                                 | Lesson  | Assignment  |
|-------------------------------------|---|---|
| Day 1<br><br><b>Area and Volume</b> | 6.1 Area of a Region Between Two Curves<br><br>I can evaluate definite integrals to find the area between curves.<br><br><b>Khan: Area between two curves given end points</b>  | p. 413: 1-6, 13-23 odd<br>(evaluate by hand)<br>Advanced: 6, 15, 21, 23                       |
| Day 2<br><br><b>Area and Volume</b> | 6.1 Area of a Region Between Two Curves<br><br>I can use a graphing calculator to help find the area between curves.<br><br><b>Khan: Area between two curves, horizontal area between curves</b>                        | p. 413: 27-37 odd, 41, 49, 51<br>(use calculator to evaluate)<br>Advanced: 33, 37, 49, 51     |
| Day 3<br><br><b>Area and Volume</b> | 6.2 Volume: The Disc (Washer) Method<br><br>I can find the volume of a solid using the disc/washer method.<br><br><b>Khan: Disc method: revolving around x- or y-axis, washer method: revolving around x- or y-axis</b> | p. 423: 1-10 all<br>(evaluate by hand)<br><br>Advanced: 1-10 evens                            |
| Day 4<br><br><b>Area and Volume</b> | 6.2 Volume: The Disc (Washer) Method<br><br>I can find the volume of a solid using the disc/washer method.<br><br><b>Khan: Disc method: revolving around other axes</b>   | p. 423: 11-21 odd, 24<br>(evaluate by hand)<br><br>Advanced: 11, 13, 15, 21                   |
| Day 5<br><br><b>Area and Volume</b> | 6.2 Volume: The Disc (Washer) Method<br><br>I can find the volume of a solid using the disc/washer method.<br><br><b>Khan: Washer method: revolving around other axes</b>   | p. 423: 29-35 odd, 39, 40, 47<br>(use calculator to evaluate)<br><br>Advanced: 29, 35, 39, 40 |
| Day 6<br><br><b>Area and Volume</b> | 6.3 Volume: The Shell Method<br><br>I can find the volume of a solid using the shell method.<br><br><b>Khan: Shell method</b>   | p. 432: 1-10 all<br>(evaluate by hand)<br><br>Advanced: 1-10 evens                            |
| Day 7<br><br><b>Area and Volume</b> | 6.3 Volume: The Shell Method<br><br>I can find the volume of a solid using the shell method.<br><br><b>Khan: Shell method challenge</b>   | p. 432: 13-21 odd, 29<br>(evaluate by hand)<br><br>Advanced: 17, 19, 21, 29                   |
| Day 8                               | <b>Khan Academy Review Day</b>  | Work on Khan sections from this chapter   |

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| Day 9  | <b>Assessment 17: Area and Volume</b>  | Assessment  |
| Day 10 | <p>7.7 Indeterminate Forms and L'Hopital's Rule</p> <p>I can find the limit of an indeterminate function using L'Hopital's Rule.</p> <p><b>Khan: L'Hôpital's rule: 0/0, L'Hôpital's rule: <math>\infty/\infty</math></b></p> | <p>p. 530: 7, 9, 13, 15, 19, 21, 29-35 odd, 55, 56</p> <p>Advanced: 7, 29, 33, 35, 56</p> |