

# AP Calculus ABBC

## Chapter 9 Syllabus\*

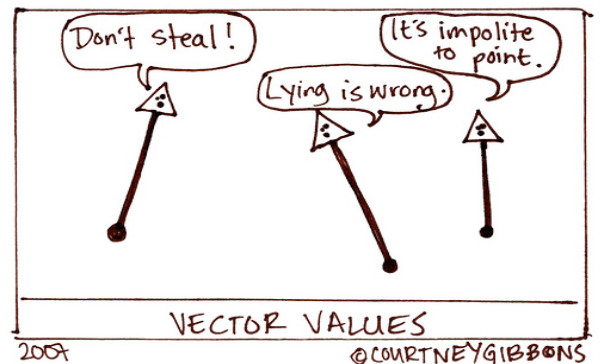
Day	Date	Description	Homework
1		9.2 Parametric Equations	<ul style="list-style-type: none"> <li>p. 650 (1, 3, 9, 13, 17, 23, 25, 66, 79) - <i>State the domain and range for all problems</i></li> <li>SET A</li> </ul>
2		9.3 Parametric Equations	<ul style="list-style-type: none"> <li>p. 657 (7, 9, 21c, 31, 43, 49*, 88, 89) - <i>*Set up and then use your calculator to calculate arc length.</i></li> </ul>
3		<b>Quiz 9.2-9.3</b> 9.4 Polar Coordinates and Graphs – <i>plotting polar coordinates, converting coordinates and equations, polar graphs</i>	<ul style="list-style-type: none"> <li>p. 668 (1, 3, 5, 11, 17, 23, 27, 29, 33-41 odd)</li> <li>Polar Graphs WKST</li> </ul>
4		9.4 Polar Coordinates and Graphs – <i>slope, periods</i>	<ul style="list-style-type: none"> <li>p. 668 (43-49 odd, 63, 71)</li> <li>p. 677 (59, 63) - <i>Set up and then use your calculator to calculate arc length.</i></li> <li>FR 2a, 3abc, 5ac</li> </ul>
5		<b>Quiz: 9.4</b> 9.5 Polar Area – <i>area bounded by one curve</i>	<ul style="list-style-type: none"> <li>P. 676 (3, 7-15 odd, 19-25 odd) - <i>Set up and then use your calculator to integrate.</i></li> </ul>
6		9.5 Polar Area – <i>intersections, arc length, area bounded by two curves</i>	<ul style="list-style-type: none"> <li>P. 676 (27, 29, 31, 37-43 odd, 77, 78) - <i>Set up and then use your calculator to integrate.</i></li> <li>FR 7</li> </ul>
7		9.5 Polar Area	<ul style="list-style-type: none"> <li>p. 670 (107, 108)</li> <li>Polar Area WKST</li> <li>FR 4, 5b, 6, 18</li> </ul>
8		<b>Quiz: 9.5</b> 9.7-9.8 Vector-Valued Functions	<ul style="list-style-type: none"> <li>p. 693 (2, 3, 7a&amp;b, 9, 11, 17, 31, 32, 33, 77, 99, 100)</li> <li>p. 700 (3, 6, 13b, 37, 38)</li> </ul>
9		Vector APs - FR 8c, 10, 14, 17,	<ul style="list-style-type: none"> <li>FR 11, 12, 13, 16</li> </ul>
10		<b>Quiz: Vectors</b>	<ul style="list-style-type: none"> <li>Ch 9 Review WKST</li> <li>PRINT: Ch 9 MC</li> </ul>
11		Ch 9 Review	<ul style="list-style-type: none"> <li>Ch 9 MC</li> <li>FR 9, 15</li> </ul>
12		<b>Ch 9 Test</b>	

\*Syllabus subject to change

### Set A

Find all asymptotes for each set of parametric equations.

- a)  $x = \sqrt{t}, y = \frac{1}{t}$   
b)  $x = \ln t, y = t$   
c)  $x = \frac{t+2}{t^2-1}, y = t-4$



**SET A Answers**

a)  $x=0, y=0$

b)  $y=0$

c)  $x=0, y=-5, y=-3$

P. 650 (Domain and Range)

1. Domain  $(-\infty, \infty)$   
Range  $(-\infty, \infty)$
3. Domain  $(-\infty, \infty)$   
Range  $[0, \infty)$
9. Domain  $\{x \mid x \neq 0\}$   
Range  $\{y \mid y \neq 1\}$
13. Domain  $(0, \infty)$   
Range  $(1, \infty)$
17. Domain  $[-8, 8]$   
Range  $[-8, 8]$
23. Domain  $[2, 6]$   
Range  $[-2, 0]$
25. Domain  $(-\infty, 4] \cup [4, \infty)$   
Range  $(-\infty, \infty)$