

Name: Mrs. Woods		Grading Quarter: 2	Week Beginning: 10/14/24
School Year: 24-25		Subject: AP Calculus AB	
Monday	Notes:	No school	
Tuesday	Notes:	<p>Objective: Students will examine the relationships between inverse functions and how inverse derivatives are connected.</p> <p>Lesson Overview: Notes: Graph $y=x^3$ and $y=\text{cubrt}(x)$ on the same set of axes. Discuss how domain and range switch and how each graph is a reflection of the other. Find the derivatives at each of these related points. Give the formula for inverse derivatives.</p>	<p>Academic Standards: 3.3 Differentiating Inverse Functions 3.G Confirm that solutions are accurate and appropriate. 3.4 Differentiating Inverse Trigonometric Functions 1.E Apply appropriate mathematical rules or procedures, with and without technology</p>
Wednesday	Notes:	<p>Objective: Students will examine the relationships between inverse functions and how inverse derivatives are connected.</p> <p>Lesson Overview: Independent practice: explicit formulas, graphs, and table examples.</p>	<p>Academic Standards: 3.3 Differentiating Inverse Functions 3.G Confirm that solutions are accurate and appropriate. 3.4 Differentiating Inverse Trigonometric Functions 1.E Apply appropriate mathematical rules or procedures, with and without technology</p>
Thursday	Notes:	<p>Objective: Students will be able to take the derivative of a logarithmic function.</p> <p>Lesson Overview: Warm up: Log properties and rules (including $e^{\ln(x)}=x$) Notes: Log derivative rules Definition of e as a limit (watch Numberphile video)</p>	<p>Academic Standards: 2.7 Derivatives of $\cos x$, $\sin x$, e^x, and $\ln x$ 1.E Apply appropriate mathematical rules or procedures, with and without technology.</p>

Friday	Notes:	Objective: Students will be able to take the derivative of a logarithmic function. Lesson Overview: Independent practice on Khan Academy	Academic Standards: 2.7 Derivatives of $\cos x$, $\sin x$, e^x , and $\ln x$ 1.E Apply appropriate mathematical rules or procedures, with and without technology.
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