## Calculus AB Schedule--Unit 3/Chapter 3 Derivatives (cont'd)

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week 7 |  |  |  |  | 6-Oct |
| Lesson |  |  |  |  | 3.1 Chain Rule |
| HMWK |  |  |  |  | HW1--p. 231 \#15, 21,23,39,41,51,73, p. 235 AP Practice \#10 |


| Week 8 | 9-Oct | 10-Oct | 11-Oct | 12-Oct | 13-Oct |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lesson | NO SCHOOL -- <br> Indigineous <br> People's Day \& Columbus Day | 3.1 Chain Rule | 1/2 DAY <br> PSAT for Some Juniors | 3.1 Chain Rule Hispanic Heritage Assembly? | 3.2 Implicit Differentiation |
| HMWK | No Additional Homework | $\begin{gathered} \text { HW2--p. } 231 \text { \#47, } \\ \text { 49, p.235 AP } \\ \text { Practice } \\ \# 3,4,5,6,11 \end{gathered}$ | No Additional Homework | HW3--p. 231 \#35, 65,69,79,83, 96abcd, p. 235 AP Practice \#8 | HW4--p. 242 \#7, 15,21,p. 245 AP Practice \#1,3,6,9 |


| Week 9 | 16-Oct | 17-Oct | 18-Oct | 19-Oct | 20-Oct |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lesson | 3.2 Implicit Differentiation | LATE START <br> 3.2 Implicit Differentiation | 3.2 Implicit Differentiation Quiz 3.1 \& 3.2 | NO SCHOOL -- <br> Parent / Teacher / Student Conferences | NO SCHOOL |
| HMWK | $\begin{gathered} \text { HW5--p. } 242 \text { \#25, } \\ 35,39,49, \text { p. } 245 \\ \text { AP Practice } \# 5,8 \end{gathered}$ | HW6--p. 242 \#47, <br> 71b,77ab, p. 245 <br> AP Practice \#2,10 <br> Study for Quiz <br> 3.1 \& 3.2 <br> October IML Math Contest after school | $\begin{gathered} \text { HW7--p. } 242 \\ \# 22,27,49,55 \end{gathered}$ | No Additional Homework | No Additional Homework |


| Week 10 | 23-Oct | 24-Oct | 25-Oct | 26-Oct | 27-Oct |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lesson | 3.3 Derivative of Inverse Trig Functions | 3.3 Derivative of Inverse Trig Functions | 3.4 Derivatives of Logarithmic Functions | 3.4 Derivatives of Logarithmic Functions | Unit 3 REVIEW |
| HMWK | $\begin{aligned} & \text { HW8--p. } 250 \text { \#17, } \\ & \text { 21,31,35,39, p.251 } \\ & \text { AP Practice \#1,2,6 } \end{aligned}$ | $\begin{aligned} & \text { HW9--p. } 250 \text { \#5, } \\ & 6,47, \text { p. } 251 \mathrm{AP} \\ & \text { Practice \#3,7,8 } \end{aligned}$ | $\begin{gathered} \text { HW10--p. } 259 \text { \#9, } \\ \text { 17,25,27,45, p.261 } \\ \text { AP Practice \#2,5 } \end{gathered}$ | $\begin{gathered} \text { HW11--p. } 259 \\ \text { \#21,26, p. } 261 \text { AP } \\ \text { Practice \#4,6,11, } \\ 12 \end{gathered}$ | HW12--p. 263 \#3, 13,14,26,35,37,41, 45, p. 264 AP <br> Review \#1,7, p. 265 <br> AP Cumulative Review \#6 |

## Calculus AB Schedule--Unit 3/Chapter 3 Derivatives (cont'd)

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week 11 | 30-Oct | 31-Oct | 1-Nov |  |  |
| Lesson | Unit 3 REVIEW | LATE START Unit 3 TEST | AP Activity: Unit 3 |  |  |
| HMWK | STUDY for TEST!!! | No Additional Homework | AP Activity: Unit 3 due Nov 8 |  |  |

## Calculus AB Schedule--Unit 3/Chapter 3 Derivatives (cont'd)

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :--- | :--- | :--- | :--- | :--- | :--- |

## UNIT 3: Differentiation (cont'd)

## FUN-3

Recognizing opportunities to apply derivative rules can simplify differentiation.

| LEARNING OBJECTIVE | ESSENTIAL KNOWLEDGE |
| :---: | :---: |
| FUN-3.C | FUN-3.C. 1 |
| Calculate derivatives of compositions of differentiable functions. | The chain rule provides a way to differentiate composite functions. |
| FUN-3.D | FUN-3.D. 1 |
| Calculate derivatives of implicitly defined functions. | The chain rule is the basis for implicit differentiation. |
| FUN-3.E | FUN-3.E. 1 |
| Calculate derivatives of inverse and inverse trigonometric functions. | The chain rule and definition of an inverse function can be used to find the derivative of an inverse function, provided the derivative exists. |
| FUN-3.E | FUN-3.E. 2 |
| Calculate derivatives of inverse and inverse trigonometric functions. | The chain rule applied with the definition of an inverse function, or the formula for the derivative of an inverse function, can be used to find the derivatives of inverse trigonometric functions. |

FUN-3
Recognizing opportunities to apply derivative rules can simplify differentiation.

LEARNING OBJECTIVE

## FUN-3.A

Calculate derivatives of familiar functions.

## FUN-3.F

Determine higher order derivatives of a function.

ESSENTIAL KNOWLEDGE
FUN-3.A. 4
Specific rules can be used to find the derivatives for sine, cosine, exponential, and logarithmic functions.

## FUN-3.F. 1

Differentiating $f^{\prime}$ produces the second
derivative $f^{\prime \prime}$, provided the derivative of $f^{\prime}$
exists; repeating this process produces higherorder derivatives of $f$.

## FUN-3.F. 2

Higher-order derivatives are represented with a variety of notations. For $y=f(x)$, notations for
the second derivative include $\frac{d^{2} y}{d x^{2}}, f^{\prime \prime}(x)$, and
$y^{\prime \prime}$. Higher-order derivatives can be denoted
$\frac{d^{n} y}{d x^{n}}$ or $f^{(n)}(x)$.

