

AP CALCULUS AB AND BC

# UNIT 3

Differentiation:  
Composite,  
Implicit, and  
Inverse Functions

AP

Remember to go to [AP Classroom](#)  
to assign students the online  
Personal Progress Check for



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## Differentiation: Composite, Implicit, and Inverse Functions

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Activity	Topic	Sample Activity
1	3.1	<b>Scavenger Hunt</b>

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UNIT  
**3**

**SUGGESTED SKILL**

 *Implementing  
Mathematical  
Processes*

**1.C**

Identify an appropriate  
mathematical rule or  
procedure based on the  
classification of a given  
H [ S U H V V L R Q



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TOPIC 3.2

# , P S O L F L W ' L - H U H Q W L D W I

**LEARNING OBJECTIVE**

**FUN-3.D**

Calculate derivatives of  
L P S O L F L W O \ G H @ Q H

**ESSENTIAL KNOWLEDGE**

**FUN-3.D.1**

The chain rule is the basis for implicit

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**SUGGESTED SKILL**

 - X V W L ® F D W L R Q

**3.G**

Confirm that solutions are


DFFXUDWH DQG DSSURSULDWH



TOPIC 3.4

# Inverse Trigonometric Functions

SUGGESTED SKILL

 *Implementing Mathematical Processes*

1.E

Apply appropriate mathematical rules or procedures, with and

Required Course Content

**ENDURING UNDERSTANDING**

**FUN-3**

5HFRJQLJLQJ RSSRUWXQLWLHV WR DSSO\ GHULYDWLYH UXOHV FDQ VLPSOLI\ G

**LEARNING OBJECTIVE**

**FUN-3.E**

Calculate derivatives of inverse and inverse  
WULJRQRPHWULF IX

**ESSENTIAL KNOWLEDGE**

**FUN-3.E.2**

7KH FKDLQ UXOH DSSOLHG ZLWK WKH GH@QLWLRQ of an inverse function, or the formula for the derivative of an inverse function, can  
EH XVHG WR @QG WKH GHULYDWLYHV RI LQYHUVH  
WULJRQRPHWULF{IXQFWLRQV



TOPIC 3.6

# Calculating Higher - Order Derivatives

**LEARNING OBJECTIVE**

**FUN-3.F**

Determine higher order

