

Name: \_\_\_\_\_

Date: \_\_\_\_\_

AP Calculus AB Analysis of Functions

In Exercises 1–4, find the first derivative of the function.

1.  $f(x) = \sqrt{4-x}$

2.  $f(x) = \frac{2}{\sqrt{9-x^2}}$

3.  $g(x) = \cos(\ln x)$

4.  $h(x) = e^{2x}$

In Exercises 5–8, match the table with a graph of  $f(x)$ .

5.

$x$	$f'(x)$
$a$	0
$b$	0
$c$	5

6.

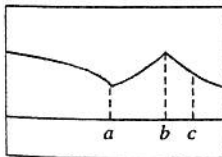
$x$	$f'(x)$
$a$	0
$b$	0
$c$	-5

7.

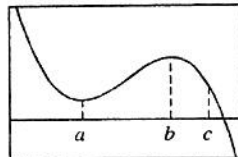
$x$	$f'(x)$
$a$	does not exist
$b$	0
$c$	-2

8.

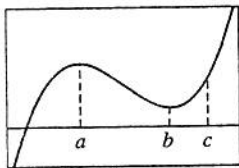
$x$	$f'(x)$
$a$	does not exist
$b$	does not exist
$c$	-1.7



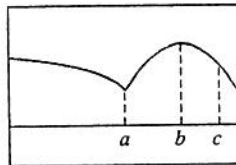
(a)



(b)



(c)



(d)