

Derivative: Limit Definition - Key

In problems 1-4, use the limit definition to find the derivative of the function

1. $f'(x) = 9$	2. $f'(x) = 2x - 4$
3. $f(x) = \frac{3}{2\sqrt{3x+2}}$	4. $f(x) = \frac{-2}{(x-6)^2}$

In problems 5-6, find the slope of the tangent line of the graph at the given point

5. $m = 2$ <hr/>	6. $m = 12$
---------------------	-------------

In problems 7-8, use the limit definition to find the equation of the tangent line at the given point

7. $y = 2x + 2$	8. $y = -x - 2$
-----------------	-----------------