

AP Calculus  
Chain Rule practice

Name \_\_\_\_\_

Find the derivative of  $g(t)$ .

1.  $g(t) = \frac{1}{\sqrt{3t^2 + 1}}$

2.  $\cot^5(2t+1)^3$

3.  $g(t) = \tan(\cos t)$

4.  $g(t) = (t^2 + t)\sin^2 t$

5. Write the equation of the tangent line to the curve  $y = \cos^3 x$  at  $x = \pi$