

# **Calculus AB 2-1 to 2-3 Practice**

Name \_\_\_\_\_

## **Find each derivative**

1)  $f(x) = \frac{3x-11}{5x+2}$

2)  $f(x) = x^5 \cos x$

3)  $f(x) = (4x^2 - 5)(x + 8)$

4)  $f(x) = \frac{x-3}{x^2-7}$

5)  $f(x) = \sin x + \cos x + \sec x$

6)  $f(x) = \tan x + \cot x + \csc x$

7)  $f(x) = 4x^3 - 5x^2 - 11x + 52$

8)  $f(x) = 90x^{2/6}$

9)  $f(x) = \frac{13}{x^2}$

## **Find the equation of the tangent line at the given point**

10)  $f(x) = \frac{10x^2+1}{x^2-2}$  at  $(3,13)$

11)  $f(x) = x \cdot \tan x$  at  $x = \pi/4$