

THREE DIFFERENTIATION QUESTIONS

1.  $f(x) = (2x - 1)^4$ . Find the equation of the line that is tangent to  $f(x)$  at  $x = 1$ .

2.  $y = \sin(e^{2x})$ . Find  $y'$ .

3.  $y = \sin(3x)$ . Find  $y''$ .