

1. (10 pts; p 137 #18) For the function $f(x) = x^3$, find $f'(x)$ using the definition on page 128 of the text (show your work). Then find an equation of the tangent line to the graph at the point $(-2, -8)$, at the point $(0, 0)$, and at the point $(4, 64)$.

2. (10 pts; p 137 #20) For the function $f(x) = \frac{2}{x}$, find $f'(x)$ using the definition (show your work). Then find an equation of the tangent line to the graph at the point $(-1, -2)$, at the point $(2, 1)$, and at the point $(5, -21)$.