

- a) Compute the derivative using the limit definition.
- b) Use your answer in a) to compute an equation of the tangent line at the point on the graph with indicated x -coordinate.
1. $f(x) = 3x + 2, x = 1$
 2. $r(x) = 2x^2 + 4x - 1, x = 0$ (Turn in)
 3. $f(x) = \sqrt{x + 3}, x = 1$
 4. $p(x) = \frac{1}{1+x^2}, x = -1$
 5. $g(x) = \frac{x}{x+1}, x = 4$ (Turn in)
 6. $q(x) = \sqrt{2x + 3}, x = 3$ (Turn in)