1. Create an animation of the graph demonstrating that a tangent line is the limit of secant lines for the following function at the given value. The graph should show the function, the tangent line, and two secant lines (one on each side). It should have a labeled legend. Show it without the axes. Leave the title as the value of the animation parameter. The graph should also have a caption with a description of the animation (in a complete sentence) and your name ("..., created by John Doe"). Be careful that you do not allow $h = 0$ in the secant lines. After you have created a successful animation, export the animation as a .gif file.

$$g(x) = x^3 \text{ at } x = 1$$

2. Create an animation of the graph illustrating the change in the value of the derivative of the following function as a point is moved along the graph on of the function on the given interval by sliding a tangent line along the curve. Your graph should have labeled x- and y-axes and a labeled legend. Leave the title as the value of the animation parameter. The graph should also have a caption with a description of the animation (in a complete sentence) and your name ("..., created by John Doe"). After you have created a successful animation, export the animation as a .gif file.

$$P(x) = x^5 - 4x^3 + x^2 + 6x \text{ on } [-1.5, 3.5]$$

Email the Maple file and both .gif files to submit the assignment.