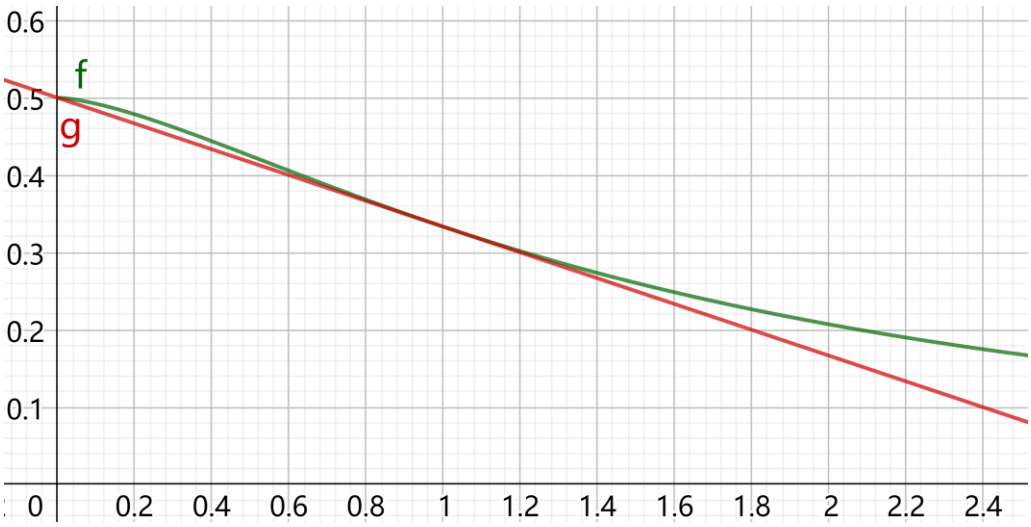
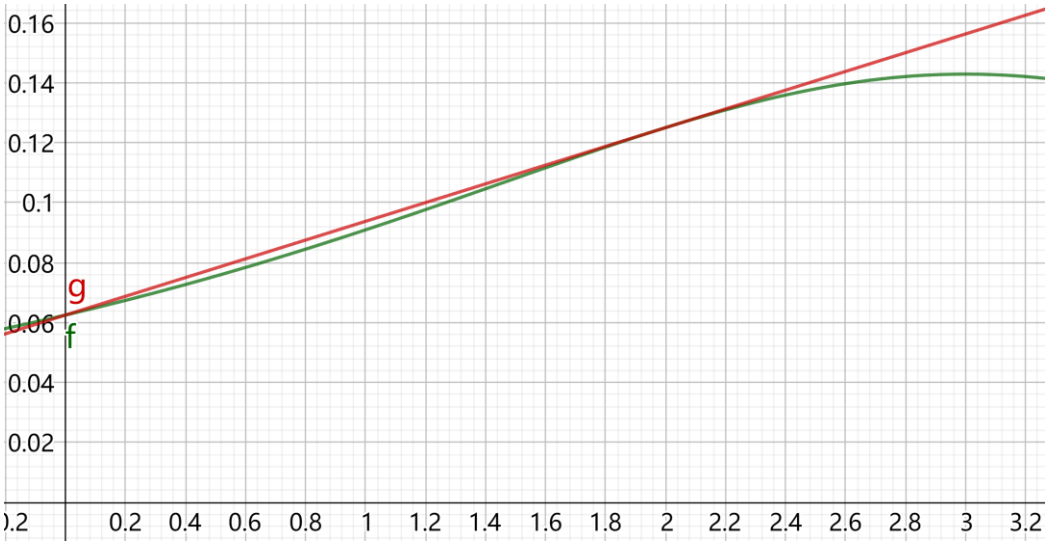
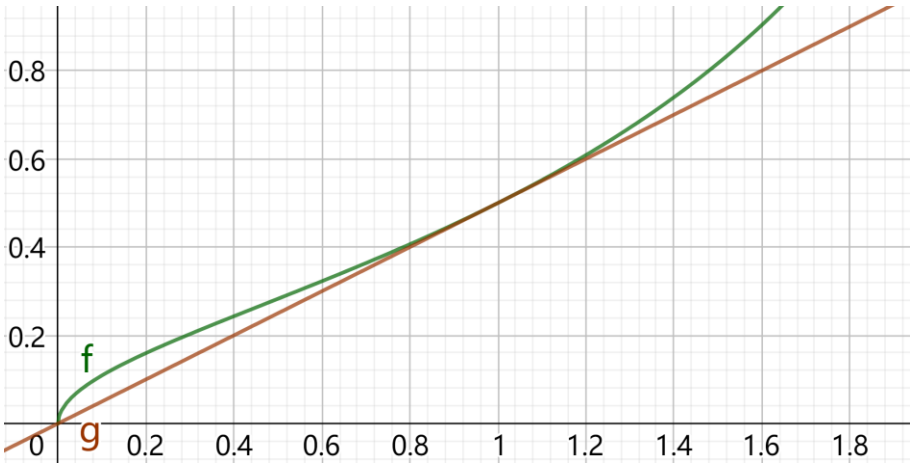
例 1. $f(x)=\dfrac{1}{x^{3/2}+2}$, $g(x)=f'(1)(x-1)+f(1)$，注意还有 $f(0)=g(0)$。



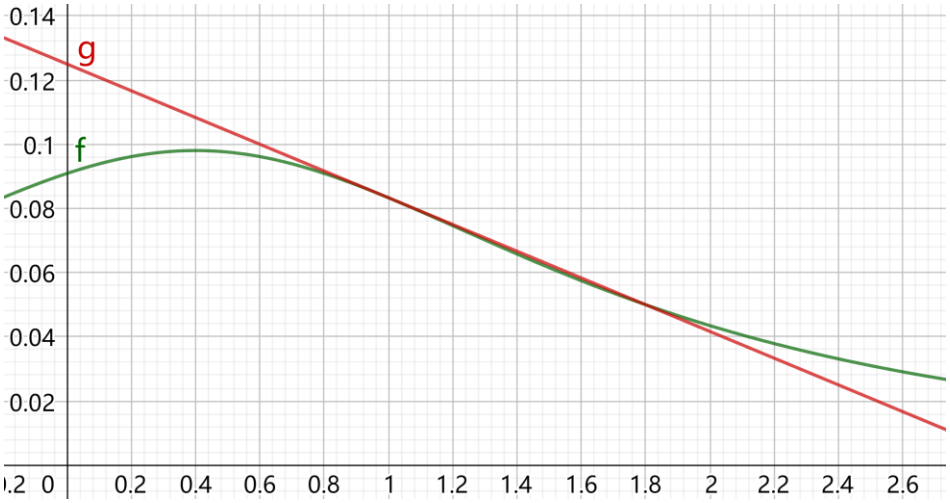
例 2. $f(x)=\dfrac{1}{x^2-6x+16}$, $g(x)=f'(2)(x-2)+f(2)$，注意还有 $f(0)=g(0)$。



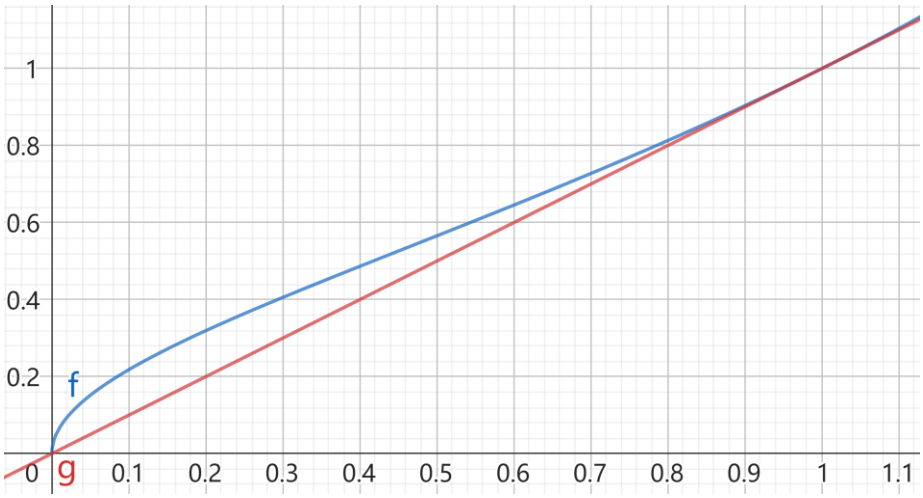
例 3. $f(x)=\dfrac{\sqrt{x}}{3-x}$, $g(x)=f'(1)(x-1)+f(1)$，注意还有 $f(0)=g(0)$。



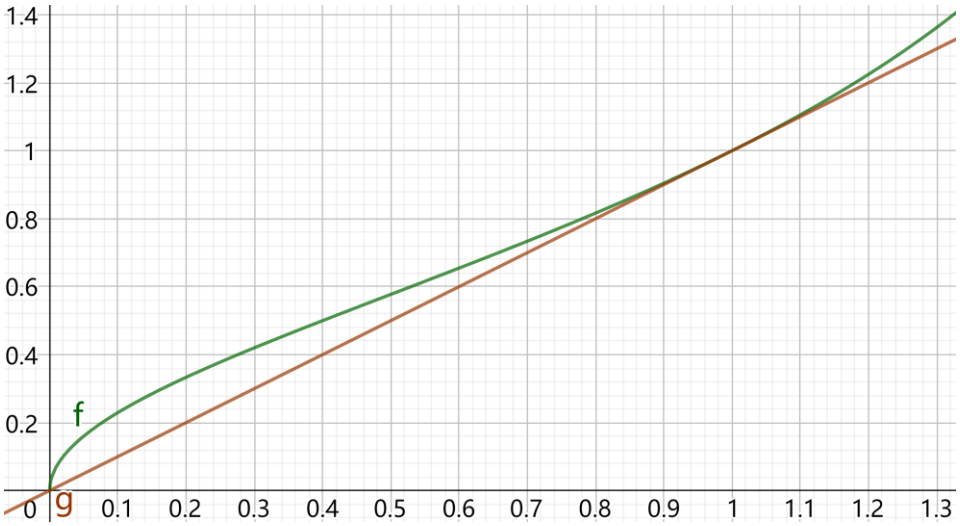
例 4. $f(x)=\dfrac{1}{5x^2-4x+11}, g(x)=f'(1)(x-1)+f(1)$，注意 $f(\dfrac{9}{5})=g(\dfrac{9}{5})$。



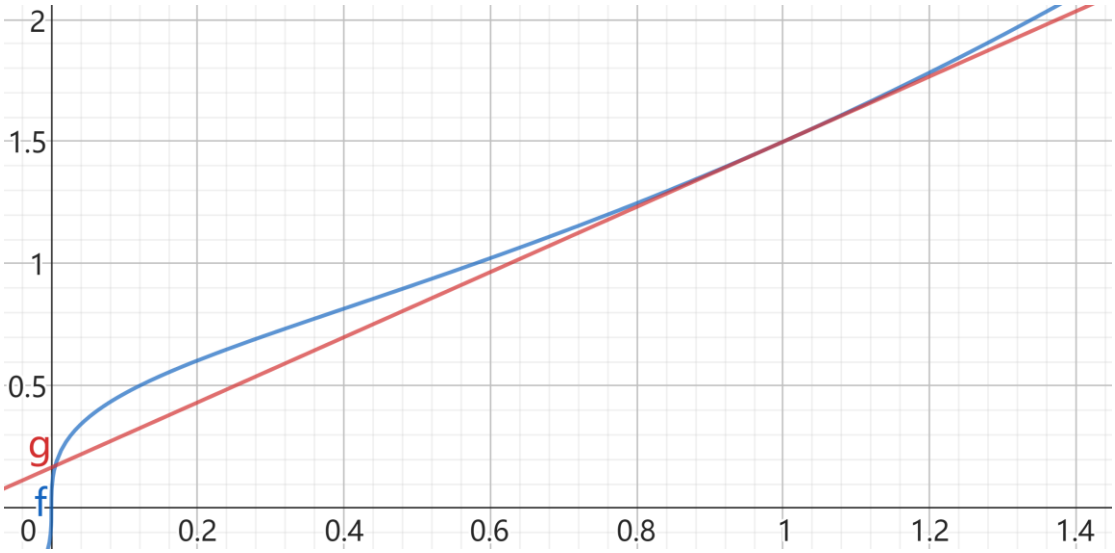
例 5. $f(x)=\dfrac{2\sqrt{x}}{3-x}, g(x)=x$， $g(x)$ 是 $f(x)$ 过 $(0,f(0)),(1,f(1))$ 两点的割线。



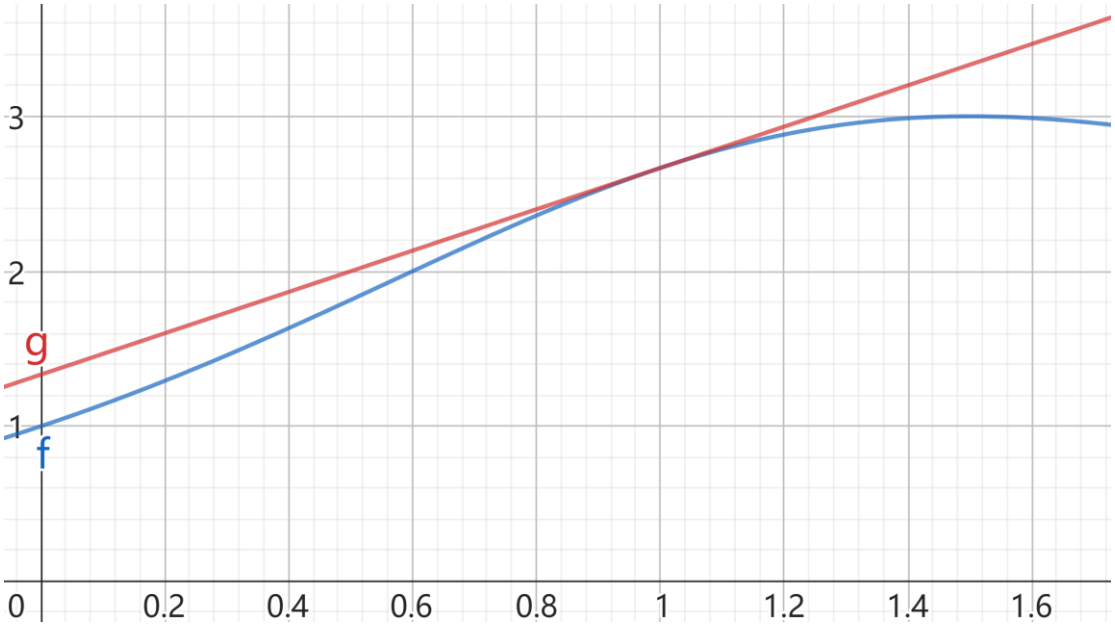
例 6. $f(x)=\sqrt{\dfrac{x}{2-x}}, g(x)=f'(1)(x-1)+f(1)$，注意还有 $f(0)=g(0)$。



例 8. $f(x)=\sqrt[3]{x}+\frac{x^2}{2}, g(x)=f'(1)(x-1)+f(1)$，注意存在 $x_0\approx 0.0052347<\frac{1}{64}$ 使得 $f(x_0)=g(x_0)$。



例 10. $f(x)=\frac{(3+x)^2}{3x^2-6x+9}, g(x)=f(1)(x-1)+f(1)$。



例 14. $f(x)=\frac{1}{x^2+1}, g(x)=f'(\frac{1}{3})(x-\frac{1}{3})+f(\frac{1}{3}), h(x)=1-\frac{x}{2}, x=\frac{1}{\sqrt{3}}$ 是 $f(x)$ 的拐点。