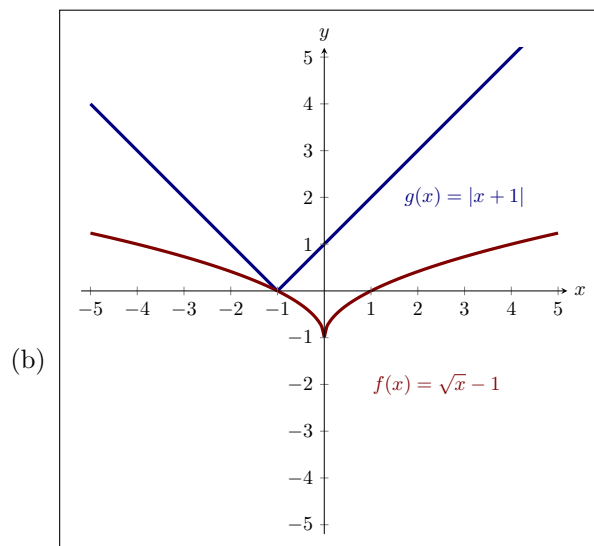
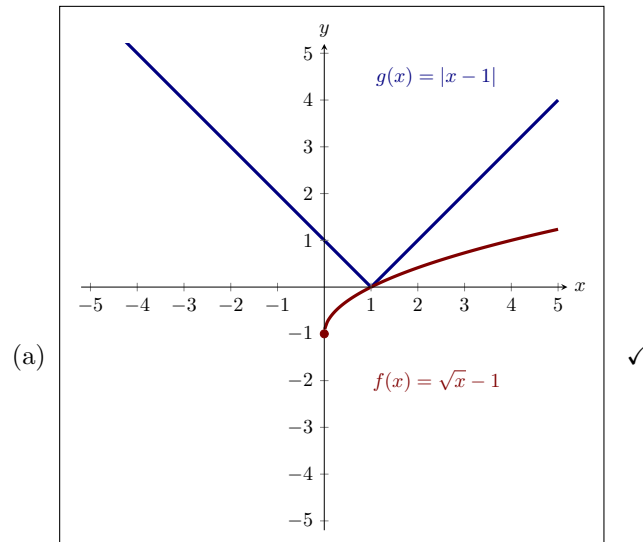
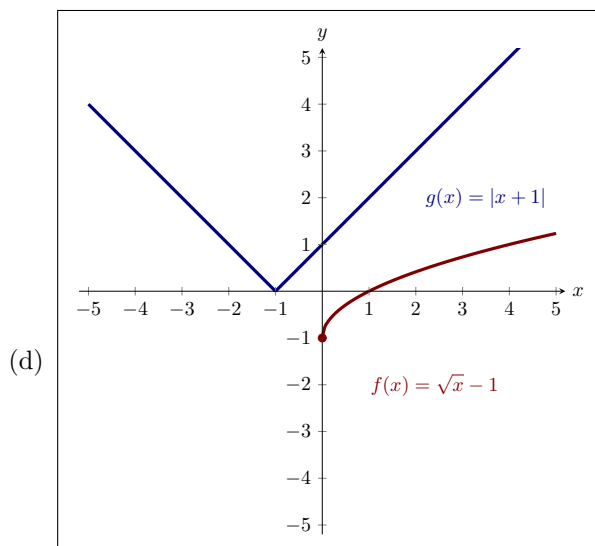
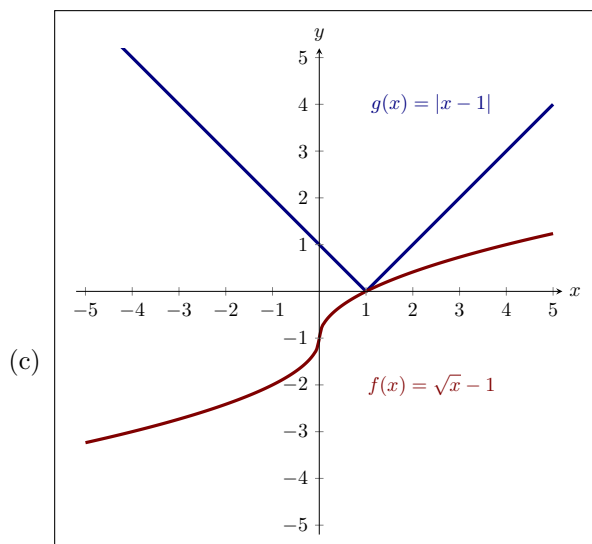


Exercise 1 Let $g(x) = |x - 1|$ and let $f(x) = \sqrt{x} - 1$. Choose the correctly sketched and labeled graph of g and f on the interval $[-5, 5]$.

Multiple Choice:





Exercise 1.1 Let h be a function defined on $(0, 2)$ such that $f(x) \leq h(x) \leq g(x)$ for all x with $0 < x < 2$ except possibly at $x = 1$. Then

$$\lim_{x \rightarrow 1} h(x) = \boxed{0}$$

due to (limit laws/ continuity/ of the difference law/ quotient law/ the Squeeze Theorem \checkmark).

Exercise 1.1.1 Compute the limit.

$$\lim_{x \rightarrow 1} \frac{e^{h(x)}}{\cos(g(x))} = \frac{e^{\boxed{0}}}{\cos(\boxed{0})} = \boxed{1}$$
