Math 133 - Quiz 1

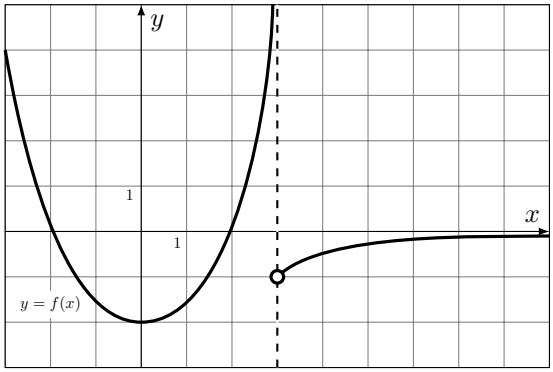
Name: _____

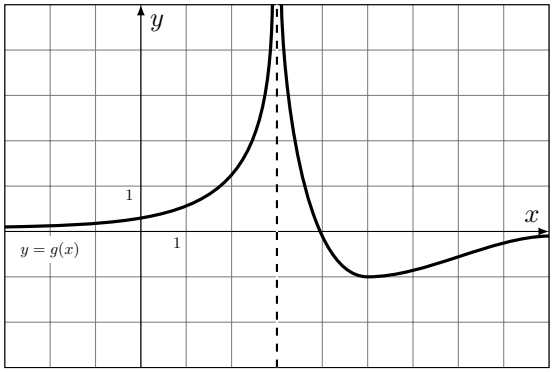
1. [T] [F] If $f(a) = L$, then $\lim_{x \to a} f(x) = L$.

2. [T] [F] If $\lim_{x \to a} f(x)$ exists, then so do $\lim_{x \to a^+} f(x)$ and $\lim_{x \to a^-} f(x)$.

3. [T] [F] If $\lim_{x \to a^+} f(x)$ and $\lim_{x \to a^-} f(x)$ exist, then so does $\lim_{x \to a} f(x)$.

4. For the functions f and g shown below find the following limits.





(a) $\lim_{x \to -\infty} f(x)$

(b) $\lim_{x \to 0} \sqrt{f(x)}$

(c) $\lim_{x \to 3^-} f(x)$

(d) $\lim_{x \to \infty} g(x)$

(e) $\lim_{x \to 3} g(x)$

(f) $\lim_{x \to 0} f(x) + g(x)$

5. Find $\lim_{t \to -2} \dfrac{t^3 + 8}{t + 2}$. Show your work.