1. Recall that a function f is continuous at the point c if $\lim_{x \to c} f(x) = f(c)$. Complete the definition of $f(x)$ below so that f is continuous at every point. Then sketch the graph of your function $f(x)$.

$$f(x) = \begin{cases} 2x^2 + 2 & \text{if } x < 1 \\ & \text{if } 1 \leq x \leq 2 \\ 2 - \dfrac{6}{x} & \text{if } x > 2. \end{cases}$$