

1. Sketch the graph of a function  $f$  such that:

- $f$  is discontinuous at  $x = -2$ ,  $x = 1$ , and  $x = 4$ ;
- $f$  is continuous from the left at  $x = -2$ ;
- $f$  is continuous from the right at  $x = 1$ .



2. Find all numbers at which the function is discontinuous:

$$f(x) = \begin{cases} x^2 - 4 & \text{if } x \leq -2 \\ 2 - |x| & \text{if } -2 < x \leq 1 \\ \frac{1}{1-x} & \text{if } x > 1 \end{cases}$$