## Exercise 97

For the following exercises, for each of the piecewise-defined functions, a. evaluate at the given values of the independent variable and $b$. sketch the graph.

$$
g(x)=\left\{\begin{array}{c}
\frac{3}{x-2}, x \neq 2 \\
4, x=2
\end{array} ; g(0) ; g(-4) ; g(2)\right.
$$

## Solution



$$
\begin{aligned}
g(0) & =\frac{3}{(0)-2}=\frac{3}{0-2}=-\frac{3}{2} \\
g(-4) & =\frac{3}{(-4)-2}=\frac{3}{-4-2}=\frac{3}{-6}=-\frac{1}{2} \\
g(2) & =4
\end{aligned}
$$

