1. (3pts) Give the domain of \( g(x) = \sqrt{2x - 3} \). Specify the domain in **an interval notation**.

2. (3pts) The graph of \( f(x) \) is given below. Find the following.

   1. State the interval(s) on which \( f(x) > 0 \).

   2. Give the domain (interval notation) of \( g(x) = \frac{1}{f(x)} \).

   3. Extra 2 points:
      Give the domain (in interval notation) of \( h(x) = \sqrt{f(x)} \).

3. (3pts) Based on the graph of \( f(x) \) given below find the limits.

\[
\begin{align*}
a. \quad & \lim_{x \to 1^-} f(x) = \\
b. \quad & \lim_{x \to 1^+} f(x) = \\
c. \quad & \lim_{x \to 1} f(x) = \\
d. \quad & \lim_{x \to -2} f(x) = \\
e. \quad & \lim_{x \to 2} f(x) = 
\end{align*}
\]

4. (3pts) (i) Complete the following table by a calculator with at least 8 decimal digits:

<table>
<thead>
<tr>
<th>( x )</th>
<th>( \frac{x^2 - 4}{x - 1} )</th>
<th>( \frac{x^2 - 4}{x + 2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-1.9999)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(-1.99999)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(-1.999999)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(ii) Based on the results obtained in the table, find numerically the limits

\[
\begin{align*}
\lim_{x \to -2^+} & \frac{x^2 - 4}{x - 1} = \\
\lim_{x \to -2^+} & \frac{x^2 - 4}{x + 2} = 
\end{align*}
\]