Rational Functions Exit Quiz

**Part A Instructions:** Choose the option that completes the sentence or answers the question.

1. The zeros of the numerator of a rational function are the:
   a. y-intercepts
   b. x-intercepts
   c. vertical asymptotes
   d. horizontal asymptotes

2. The zeros of the denominator of a rational function are the:
   a. y-intercepts
   b. x-intercepts
   c. vertical asymptotes
   d. horizontal asymptotes

3. If the graph of the rational function passes through the point \(x = -2\), then:
   a. \(x = -2\) is a vertical asymptote
   b. \(x = -2\) is a horizontal asymptote
   c. \(x = -2\) is a y-intercept
   d. \(x = -2\) is an x-intercept

4. The vertical asymptotes of \(\frac{1}{x}\) are:
   a. \(x = 1\)
   b. \(x = 0\)
   c. \(x = 1, -1\)
   d. Both b and c

**Part B Instructions:** Answer the question below.

5. Solve the equation \(\frac{4}{x-2} - \frac{2}{x} = \frac{14}{x^2-2x}\).
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Answers

Part A Instructions: Choose the option that completes the sentence or answers the question.

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Part B Instructions: Answer the question below.

5. Solve the equation \( \frac{4}{x-2} - \frac{2}{x} = \frac{14}{x^2-2x} \).

\[
x(x - 2) \left( \frac{4}{x-2} - \frac{2}{x} \right) = x(x - 2) \left( \frac{14}{x(x-2)} \right)
\]

\[
4x - 2(x - 2) = 14
\]

\[
4x - 2x + 4 = 14
\]

\[
2x = 10
\]

\[
x = 5
\]