Math 115 Dusty Wilson Sign Diagrams

Use a sign diagram to find the domain of a function.

Find the domain of the function $f(x) = \sqrt{\frac{x^2 - 8x + 16}{1 - x}}$. Do this using the following steps.

a.) Construct a sign diagram (or sign chart) of $\frac{x^2 - 8x + 16}{1 - x}$.

b.) Use part (a.) to construct a sign diagram of $f(x) = \sqrt{\frac{x^2 - 8x + 16}{1 - x}}$.

c.) Use the sign diagram to find the domain of f(x). Express your answer in set-notation.

х