Given the algebraic rule for a function $f(x)$ which is either a polynomial function, a rational function, a radical function, or a composition of such functions, use the following flow chart to determine if the domain of $f(x)$ is all real numbers.

Is the domain "all reals"?

- Does $f(x)$ involve an even root?  
  - NO  
  - YES Is there a real number $x$ which would make the expression under the radical negative?  
    - NO  
    - YES The domain is "all reals"  
  - YES 
- Does $f(x)$ involve a denominator?  
  - NO  
  - YES Is there a real number $x$ which would make the denominator zero?  
    - NO  
    - YES The domain is not "all reals"  
  - YES The domain is "all reals"