

Non-permissible Values vs Restrictions

Non-permissible values are values of the variable(s) that make the denominator of a rational expression equal to zero. We can determine the non-permissible values by factoring every expression in the denominator of each expression.

Example

$$\frac{x+1}{x^2-5x+6} \cdot \frac{x-2}{x^2-4x+4}$$
$$= \frac{x+1}{(x-3)(x-2)} \cdot \frac{x-2}{(x-2)(x+2)}$$

The non-permissible values of x are $x = 3, x = 2$ and $x = -2$.

The restrictions on the variable are also the values of x that make the denominator equal to zero. The main difference between the two terms is how they are expressed (ie. notation).

The restrictions on the variable x are $x \neq 3, x \neq 2$ and $x \neq -2$.