So far, we have only graphed rational equations with horizontal asymptotes. Sometimes though, a rational equation has a slant asymptote instead of a horizontal one.

How do you tell if a rational equation has a slant asymptote?

Example: \( f(x) = \frac{x^2 - 2x + 1}{x} \)

First use division to rewrite the rational expression as a quotient.

The quotient that is not part of the remainder is the equation for the slant asymptote.
Now, you try. Graph \( f(x) = \frac{x^2}{x-6} \)