

**10.**  $f(x) = \frac{1}{x - x^2} = \frac{1}{\frac{1}{4} - \left(\frac{1}{4} - x + x^2\right)} = \frac{1}{\frac{1}{4} - \left(x - \frac{1}{2}\right)^2}.$

Observe that  $f(x) \geq f(1/2) = 4$  for all  $x$  in  $(0, 1)$ .