

If  $f(x) = x$  and  $g(x) = \frac{1}{x}$ . Find  $\frac{f}{g}(x)$ .

**Solution:**

$$\frac{f}{g}(x) = \frac{x}{\frac{1}{x}} = x^2 \text{ for } x \neq 0.$$

**Answer:**  $\frac{f}{g}(x) = x^2$  for  $x \neq 0$ .