

$$\left(\frac{f}{g}\right)(x) = \frac{f(x)}{g(x)} = \frac{6x^2 + 5x - 4}{3x^2 - 23x - 36} = \frac{(3x + 4)(2x - 1)}{(3x + 4)(x - 9)} = \frac{2x - 1}{x - 9}$$