

Math 0305, Quiz #4
EPCC Fall 2006
September 21, 2006

Name Solution

Divide, simplify, and state the domain of the rational expression.

$$\frac{2x^2 - x - 3}{2x^2 - 5x + 3} \div \frac{3x^2 - x - 4}{x^2 - 1}$$

$$\frac{2x^2 - x - 3}{2x^2 - 5x + 3} \cdot \frac{x^2 - 1}{3x^2 - x - 4}$$

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

$$= \boxed{\frac{x+1}{3x-4}}$$

$$x \neq \frac{3}{2}$$

$$x \neq 1$$

$$x \neq \frac{4}{3}$$

$$x \neq -1$$

Domain