

Simplify the following algebraic fractions

$$1) \quad \frac{3x^2 + 7x + 2}{6x^2 + 2x} = \frac{\cancel{(3x+1)}(x+2)}{2x \cancel{(3x+1)}} = \frac{x+2}{2x}$$

$$2) \quad \frac{10x^2 + 17x + 3}{4x^2 - 9} = \frac{\cancel{(2x+3)}(5x+1)}{\cancel{(2x+3)}(2x-3)} = \frac{5x+1}{2x-3}$$

$$3) \quad \frac{4x^2 - 4x - 3}{2x^2 + 5x - 12} = \frac{\cancel{(2x-3)}(2x+1)}{\cancel{(2x-3)}(x+4)} = \frac{2x+1}{x+4}$$

$$4) \quad \frac{8x^2 - 12x}{2x^2 + 7x - 15} = \frac{4x \cancel{(2x-3)}}{\cancel{(2x-3)}(x+5)} = \frac{4x}{x+5}$$

$$5) \quad \frac{9x^2 - 3x}{5x^2 + 10x} = \frac{3x \cancel{(3x-1)}}{5x(x+2)} = \frac{3 \cancel{(3x-1)}}{5(x+2)}$$
