

## Algebra 3 Assignment # 8

Solve for x please.

$$(1) \frac{4x - 1}{4} + \frac{2x - 3}{3} - \frac{3x + 8}{12} = 2 - \frac{2x + 1}{2}$$

$$(2) \frac{3}{2} \left( \frac{2}{3}x - \frac{3}{4} \right) - \frac{5}{6} \left( \frac{1}{2}x + \frac{3}{5} \right) = \frac{1}{3} \left( 2x - \frac{3}{4} \right) - 2$$

$$(3) \frac{2x + 1}{x^2 + x - 2} + \frac{x + 1}{x^2 - 4x + 3} = \frac{x - 2}{x^2 - x - 6}$$

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

$$(5) \frac{5x + 2}{x - 1} + \frac{2x - 3}{x + 1} = \frac{3x^2 + 7}{x^2 - 1} + 2x$$

$$(6) \frac{2x + 1}{x - 5} + \frac{3x + 2}{x - 2} = \frac{3x - 30}{x^2 - 7x + 10} + x$$

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### **Answers**

(1)  $\frac{41}{29}$

(2)  $\frac{15}{2}$

(3)  $-\frac{3}{2}$  (reject 1)

(4)  $-\frac{3}{5}$  (reject 3)

(5)  $\frac{3 \pm \sqrt{5}}{2}$  (reject -1)

(6) 1 , 9 , (reject 2)