# [06-02-10-T7]

*Fractions - more practice.*

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■ **All count 4 points**

■ **A. Simplify the following expressions by writing as a single fully reduced fraction.**

[1] $\frac{x-4}{3} - \frac{2x-7}{6}$

[2] $\frac{2x+5}{8} - \frac{3x-2}{4}$

[3] $\frac{9a+3}{15} - \frac{a-2}{3} + 3$

[4] $\frac{-x-5}{3} - \frac{-2x-3}{2}$

[5] $\frac{3-2x}{24} - \frac{5x-3}{8}$

[6] $\frac{2x+1}{4} - \frac{3y}{2}$

[7] $\frac{2a+6}{10} - \frac{a+3}{5} - \frac{15a-5}{25}$ (Hint: somtimes you can reduce to get a common denominator.)

[8] $\frac{a-b}{2} - \frac{b-a}{2}$

■ **B. Fully reduce each of the following. If expression is already fully reduced, the write "Fully reduced".**

[1] $\frac{2a+12b}{12}$

[2] $\frac{a+6}{6}$

[3] $\frac{2x+4y+8}{3x+6y+12}$

[4] $\frac{2x-5}{5-x}$

[5] $\frac{113a-227b}{227b-113a}$

[6] $\frac{5b-10a+15}{10}$

[7] $\frac{9+3a-6b}{6b-18a}$

[8] $\frac{\frac{a-b}{b-a}}{\frac{2a-2b}{3b-3a}}$

[9] $\frac{9-27a-12b}{6(3-9a-4b)}$

## ■ C. Solve the following

[1] $\frac{2}{3}x - \frac{1}{4} = \frac{1}{8}$

[2] $\frac{2x+5}{49} - \frac{3x}{7} = x - 2$

[3] $0.017x - 0.07 = 0.1$

[4] $2\left(\frac{1}{97}x + \frac{1}{163}\right) = 0$ (Hint: remember that $0 \cdot x = 0$)

[5] $2\left(3x + \frac{1}{3}\right) = \frac{2x}{3}$

# Answers

## ■ A.

[1] $-\frac{1}{6}$ [2] $\frac{9-4x}{8}$ [3] $\frac{4a+58}{15}$ [4] $\frac{4x-1}{6}$

[5] $\frac{12-17x}{24}$ [6] $\frac{2x-6y+1}{4}$ [7] $\frac{1-3a}{5}$ [8] $a-b$

## ■ B.

[1] $\frac{a}{6}+b$ [2] $\frac{a+6}{6}$ [3] $\frac{2}{3}$ [4] $\frac{5-2x}{x-5}$ [5] $-1$

[6] $\frac{-2a+b+3}{2}$ [7] $\frac{a-2b+3}{2b-6a}$ [8] $\frac{3}{2}$ [9] $\frac{1}{2}$

## ■ C.

[1] $x=\frac{9}{16}$ [2] $x=\frac{103}{68}$ [3] $x=10$ [4] $x=-\frac{97}{163}$

[5] $x=-\frac{1}{8}$