ALGEBRA II REVIEW PROBLEMS
(9-4 thru 9-6)

1. Perform the indicated operations and simplify.

a. $\dfrac{x^2-6x+8}{x^2-5x+6} \div \dfrac{x^2-7x+12}{x^2-4x+4}$

b. $\dfrac{x+5}{5-x} \cdot \dfrac{x^2-4x-5}{x^2}$

c. $\dfrac{3a}{9a^2-4b^2} - \dfrac{1}{3a+2b}$

d. $\dfrac{16x-x^2}{x^2-4} + \dfrac{2x+3}{2-x} + \dfrac{3x-2}{x+2}$

e. $\dfrac{3-\dfrac{6}{x+5}}{1+\dfrac{7}{x-4}}$

2. Solve the following.

a. $\dfrac{5x}{x-5} + \dfrac{4}{x+6} = \dfrac{54x+5}{x^2+x-30}$

b. $\dfrac{x}{x-1} - \dfrac{2}{1-x^2} = \dfrac{8}{x+1}$

POTENTIAL ANSWERS

1a. $\dfrac{x^2-4x+4}{x^2-6x+9}$; $x \neq 2, 3$ *or* 4

1b. $-\dfrac{x^2+6x+5}{x^2}$ *or* $\dfrac{-x^2-6x-5}{x^2}$ *or* $\dfrac{x^2+6x+5}{-x^2}$; $x \neq 0$ *or* 5

1c. $\dfrac{2b}{9a^2-4b^2}$

1d. $\dfrac{1}{x+2}$

1e. $\dfrac{3x-12}{x+5}$

2a. $x = -1$

2b. $x = 2$ *or* 5