

CH. 3 Review Sheet

NAME: _____

PERIOD: _____

Simplify the expressions below. you may leave your answer in factored form. Clearly indicated answer, and mention excluded values of variable.

$$\textcircled{1} \frac{2a+5}{4a+7} \cdot \frac{7+4a}{2a-5}$$

$$\textcircled{2} \frac{b+3}{6b-5} \div \frac{3b+1}{6b-5}$$

$$\textcircled{3} \frac{8c}{(3c+2)^2} \cdot \frac{3c+2}{9c-1}$$

$$\textcircled{4} \frac{d^2+4d+4}{d^2-4}$$

$$\textcircled{5} \frac{3e+9}{e^2+3e}$$

$$\textcircled{6} \frac{2f^2 + 5f - 12}{6f^2 - 13f + 6}$$

Simplify the following expressions. (Always consider factoring, it may allow you to simplify further.)

$$\textcircled{7} \frac{3g}{g-2} + \frac{4}{g+5}$$

$$\textcircled{8} \frac{7h-10}{(a-h)(h-a)} - \frac{2h}{h-a}$$

$$\textcircled{9} \frac{j^2+6j}{(j+6)^2} \cdot \frac{j^2+7j+6}{j^2-1}$$

$$\textcircled{11} \quad \frac{k^2 - 4k - 5}{k^2 - 4k + 4} \div \frac{k^2 - 2k - 15}{k^2 + 4k - 12}$$

$\textcircled{12}$ solve each equation after first rewriting it in simpler form.

a. $\frac{3}{4}x^2 = \frac{5}{4}x + \frac{1}{2}$

b. $\frac{3x}{7} + \frac{2}{7} = 2$