

Name: SOLUTIONS

Math 1260 Quiz #2 - May 18, 2006

1. Perform the indicated operations and put your solution in lowest terms:

$$\begin{aligned} \text{a. } \frac{2}{a+2} + \frac{1}{a} + \frac{a-1}{a^2+2a} &= \frac{2a}{a(a+2)} + \frac{a+2}{a(a+2)} + \frac{a-1}{a(a+2)} \\ &= \frac{4a+1}{a(a+2)} \end{aligned}$$

$$\begin{aligned} \text{b. } \frac{m^2+3m+2}{m^2+5m+4} \div \frac{m^2+5m+6}{m^2+10m+24} &= \frac{(m+2)(m+1)}{(m+4)(m+1)} \cdot \frac{(m+6)(m+4)}{(m+3)(m+2)} \\ &= \frac{m+6}{m+3} \end{aligned}$$

2. Solve each equation:

a. $2x^2 - 7x - 30 = 0$

$$2x^2 - 12x + 5x - 30 = 0$$

$$2x(x-6) + 5(x-6) = 0$$

$$(2x+5)(x-6) = 0$$

$$2x+5=0 \quad x-6=0$$

$$x = -\frac{5}{2} \quad x = 6$$

b. $\frac{5}{p+3} - \frac{3}{p-2} = \frac{4}{p+3}$

multiply both sides by $(p+3)(p-2)$

$$5(p-2) - 3(p+3) = 4(p-2)$$

$$5p-10-3p-9=4p-8$$

$$-11 = 2p$$

$$p = -\frac{11}{2}$$