Mathematics 101 Worksheet 5.3-5.5

<u>Problems</u>

1)Simplify to lowest terms.

a) $\frac{x^2}{x-4} - \frac{8x-16}{x-4}$

b) $\frac{y}{2y-1} + \frac{3}{1-2y}$

c) $\frac{4x}{x+1} + x + \frac{2}{x+1}$

d) $\frac{3+\frac{3}{k}}{4+\frac{4}{k}}$

e) $\frac{2u^{-1}+2v^{-1}}{4u^{-3}+4v^{-3}}$

f) $\frac{ax+bx+2a+2b}{ax-3a+bx-3b} \cdot \frac{x-3}{x-5} \div \frac{x+2}{ax-5a}$

g) $\frac{3}{x^2+8x+15} - \frac{1}{x^2+7x+12} - \frac{1}{x^2+9x+20}$

2)Solve:

a) $\frac{7}{z+1} - \frac{z-5}{z^2-1} = \frac{6}{z}$

b) $\frac{4x}{x-4} = 3 + \frac{16}{x-4}$

3) Solve for T.

$\frac{1+Tv}{T} = p$