Practice Test Quiz 9

1. Solve the following system of equations $\begin{cases} x=(y+1)^2 \\ y=\frac{1}{2}x-1 \end{cases}$	(4, 1), (0, -1)
2. Solve the following system of equations $\begin{cases} x^2+\frac{y^2}{2}=3 \\ y^2=4\lvert x\rvert \end{cases}$	(1,2), (1,-2), (-1,2), (-1,-2)
3. Solve the following system of equations $\begin{cases} xy=4 \\ \frac{1}{x}+\frac{1}{y}=1 \end{cases}$	(2,2)
4. Solve the following system of equations $\begin{cases} 2x+y-z=1 \\ \frac{x}{2}+y+z=2 \\ 3x+3y-2z=5 \end{cases}$	$\left(-\frac{2}{3},\frac{7}{3},0\right)$
5. Write the partial fraction decomposition of $\frac{x-5}{x^2-2x-8}$	$\frac{\frac{7}{6}}{x+2}+\frac{-\frac{1}{6}}{x-4}$
6. Write the partial fraction decomposition for $\frac{4x^2+3}{(x-5)^3}$	$\frac{4}{x-5}+\frac{40}{(x-5)^2}+\frac{103}{(x-5)^3}$