# AIM examples

1. 

$\left\{ \begin{matrix}

x=r\cos t \\

y=r\sin t \\

z={{r}^{2}}\sin 3t \\

\end{matrix} \right.$

3. 

\[\left| x \right|=\left\{ \begin{matrix}

x\quad \text{if}\,x\ge 0 \\

-x\quad \text{if}\,x<0 \\

\end{matrix} \right.\]

5. 

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${{J}\_{i}}=\left[ \begin{matrix}

{{C}\_{i}} & I & {} & {} \\

{} & {{C}\_{i}} & \ddots & {} \\

{} & {} & \ddots & I \\

{} & {} & {} & {{C}\_{i}} \\

\end{matrix} \right]$