

1. $V = xy$

2. $V = y - x$

3. $V = y^2/2 + x^3/3 - x^2/2$. Note that (verify!) in general, $x'' + h(x) = 0$ has a prime integral $y^2/2 + H(x)$, where $y = x'$ and $H(x) = \int h(x) dx$.

4. $V = z/x$ or $V = zx - y^2$.