

```

CRK4[["Step"[rhs_, t_, h_, y_, yp_]] := Module[{k0, k1, k2, k3}, k0 = h yp;
  k1 = hrhs[t + h / 2, y + k0 / 2];
  k2 = hrhs[t + h / 2, y + k1 / 2];
  k3 = hrhs[t + h, y + k2];
  {h, (k0 + 2 k1 + 2 k2 + k3) / 6}]

fixed = NDSolve[{y'[x] == 2 x x y[x] + x, y[0] == 0}, y[x], {x, 0, 0.4}, Method -> CRK4]
{{y[x] -> InterpolatingFunction[{{0., 0.4}}, <>][x]}}

Plot[Evaluate[y[x] /. s], {x, 0, 0.4}, PlotRange -> All]

```

