

步長 $h = 0.05$

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t = 0.00, RK4 = [1.33333333 0.66666667], Exact = [1.33333333 0.66666667], Error = [0.00000000e+00 1.11022302e-16]
t = 0.05, RK4 = [ 1.72188026 -0.49959934], Exact = [ 1.91205853 -0.90907659], Error = [0.19017838 0.40947724]
t = 0.10, RK4 = [ 1.72691505 -0.83259771], Exact = [ 1.79306259 -1.03200245], Error = [0.06614754 0.19940475]
t = 0.15, RK4 = [ 1.61716063 -0.89037299], Exact = [ 1.60196676 -0.96145871], Error = [0.01519387 0.07108572]
t = 0.20, RK4 = [ 1.48168729 -0.86104209], Exact = [ 1.4239024 -0.87468103], Error = [0.05778489 0.01363894]
t = 0.25, RK4 = [ 1.34894503 -0.80750453], Exact = [ 1.26764562 -0.79522077], Error = [0.08129941 0.01228376]
t = 0.30, RK4 = [ 1.2270633 -0.75034063], Exact = [ 1.13157652 -0.72499857], Error = [0.09548678 0.02534206]
t = 0.35, RK4 = [ 1.11747812 -0.69588591], Exact = [ 1.01299856 -0.66305963], Error = [0.10447957 0.03282629]
t = 0.40, RK4 = [ 1.01952546 -0.64573176], Exact = [ 0.90940859 -0.60821421], Error = [0.11011687 0.03751755]
t = 0.45, RK4 = [ 0.93197667 -0.59993424], Exact = [ 0.81862953 -0.55938925], Error = [0.11334713 0.04054499]
t = 0.50, RK4 = [ 0.85354051 -0.55809249], Exact = [ 0.73878784 -0.51565767], Error = [0.11475267 0.04243482]
t = 0.55, RK4 = [ 0.78301727 -0.51970627], Exact = [ 0.66827466 -0.47622475], Error = [0.11474261 0.04348152]
t = 0.60, RK4 = [ 0.71933702 -0.4842903 ], Exact = [ 0.60570965 -0.44041076], Error = [0.11362737 0.04387955]
t = 0.65, RK4 = [ 0.66156029 -0.45140706], Exact = [ 0.54990941 -0.40763534], Error = [0.11165088 0.04377172]
t = 0.70, RK4 = [ 0.60886766 -0.42067262], Exact = [ 0.49986025 -0.37740382], Error = [0.10900741 0.0432688 ]
t = 0.75, RK4 = [ 0.56054684 -0.39175408], Exact = [ 0.45469474 -0.34929551], Error = [0.10585211 0.04245857]
t = 0.80, RK4 = [ 0.51598005 -0.36436468], Exact = [ 0.41367148 -0.32295352], Error = [0.10230857 0.04141116]
t = 0.85, RK4 = [ 0.47463257 -0.33825859], Exact = [ 0.37615771 -0.29807605], Error = [0.09847486 0.04018254]
t = 0.90, RK4 = [ 0.43604262 -0.3132261 ], Exact = [ 0.34161435 -0.27440884], Error = [0.09442827 0.03881727]
t = 0.95, RK4 = [ 0.39981231 -0.28908926], Exact = [ 0.309583 -0.25173868], Error = [0.0902293 0.03735057]
t = 1.00, RK4 = [ 0.36559983 -0.26569799], Exact = [ 0.27967491 -0.22988784], Error = [0.08592492 0.03581015]
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步長 $h = 0.1$

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t = 0.00, RK4 = [1.33333333 0.66666667], Exact = [1.33333333 0.66666667], Error = [0.00000000e+00 1.11022302e-16]
t = 0.10, RK4 = [-3.05243707 8.98930534], Exact = [ 1.79306259 -1.03200245], Error = [ 4.84549965 10.0213078 ]
t = 0.20, RK4 = [-23.84779486 51.192704 ], Exact = [ 1.4239024 -0.87468103], Error = [25.27169726 52.06738503]
t = 0.30, RK4 = [-130.16520171 269.26919317], Exact = [ 1.13157652 -0.72499857], Error = [131.29677824 269.99419174]
t = 0.40, RK4 = [-680.23148509 1399.3685835 ], Exact = [ 0.90940859 -0.60821421], Error = [ 681.14089368 1399.97679771]
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