

Case 1. $y(5) =$

-1.235848513127279266263157529246402852239M+0

Error in the computed solution = 5.1990277E-36

For tolerance = 1.0000E-30 time = 0.37 sec.

Case 2. $y(2) =$

1.230600248057767358078517198458216419798M-1

$y'(2) =$

-1.793793747979046168120547067523165832696M-1

Error in the computed $y(2)$ solution = 1.9702834E-36

For tolerance = 1.0000E-30 time = 0.37 sec.

Case 3. $y(2) =$

2.812846529108307015513184310578739277283M-1

$y'(2) =$

9.793842850305930428136423127988456087246M-1

$y''(2) =$

-1.077917036147696728438989172661602513711M+1

Error in the computed $y(2)$ solution = 5.6379906E-39

For tolerance = 1.0000E-30 time = 0.68 sec.

Case 4. $y(2) =$

2.81284652910830701551318434093M-1

$y'(2) =$

9.79384285030593042813642313393M-1

$y''(2) =$

-1.07791703614769672843898917221M+1

Error in the computed $y(2)$ solution = 3.0348581E-27

For tolerance = 1.0000E-20 time = 0.10 sec.

Case 5. $y(2) =$

2.8128465291083070155131843105787392772269571753343M-1

$y'(2) =$

9.7938428503059304281364231279884560872391181737909M-1

$y''(2) =$

-1.0779170361476967284389891726616025137166320376171M+1

Error in the computed $y(2)$ solution = 1.4242298E-48

For tolerance = 1.0000E-40 time = 4.82 sec.

Case 6. $y(2) =$

2.81284652910830701551318431057873927722695717534855004196009M-1

$y'(2) =$

9.79384285030593042813642312798845608723911817377796295398664M-1

$y''(2) =$

-1.07791703614769672843898917266160251371663203761733110146568M+1

Error in the computed $y(2)$ solution = 3.8419117E-59

For tolerance = 1.0000E-50 time = 29.90 sec.