|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **n** | **K1**  **For Modified Euler’s Method** | **K2**  **For Modified Euler’s Method** | **Modified Euler’s**  **Method** | **K1**  **for Heun’s**  **Method** | **K2 for Heun’s Method** | **Heun’s**  **Method** | **Classical**  **4-K Method** | **K1 for Classical 2-K** | **K2 for Classical 2-K** | **K3**  **for Classical 2-K** | **K4**  **for Classical 2-K** | **Exact Solution** | **Absolute Error/Value**  **For Modified Euler’s Method** | **Relative Error/Value**  **For Modified**  **Euler’s Method** | **Absolute Error**  **For Heun’s**  **Method** | **Relative Error for Heun’s Method** | **Absolute Error**  **For Classical 2-K** | **Relative Error**  **For Classical 2-K** |
| **0** | **0.00000000** | **0.00750000** | **1.00075000** | **0.00000000** | **0.01333333** | **1.00099999** | **1.00100047** | **0.00000000** | **0.00750000** | **0.00750281** | **0.03002251** | **1.00000000** | **0.00025050** | **0.00999750** | **0.00025050** | **0.00999750** | **0.00025050** | **0.00999750** |
| **1** | **0.03002250** | **0.06765195** | **1.00751519** | **0.03003000** | **0.08358350** | **1.00801951** | **1.00803202** | **0.03003001** | **0.06766888** | **0.06779591** | **0.12093361** | **1.00100050** | **0.00051689** | **0.00999487** | **0.00051689** | **0.00999487** | **0.00051689** | **0.00999487** |
| **2** | **0.12090182** | **0.19004255** | **1.02652944** | **0.12096234** | **0.21676452** | **1.02730091** | **1.02736770** | **0.12096384** | **0.19014004** | **0.19078857** | **0.27731994** | **1.00803209** | **0.00084835** | **0.00999174** | **0.00084835** | **0.00999174** | **0.00084835** | **0.00999174** |
| **3** | **0.27716025** | **0.38233872** | **1.06475331** | **0.27737125** | **0.42180290** | **1.06587041** | **1.00660923** | **0.27738928** | **0.38265466** | **0.38458891** | **0.51159677** | **1.02736879** | **0.00133908** | **0.00998744** | **0.00133908** | **0.00998744** | **0.00133908** | **0.00998744** |
| **4** | **0.51108159** | **0.66236175** | **1.13098949** | **0.51161780** | **0.71865246** | **1.13255979** | **1.33114823** | **0.51172428** | **0.66319467** | **0.66779559** | **0.84965386** | **1.06607239** | **0.00215896** | **0.00998095** | **0.00215896** | **0.00998095** | **0.00215896** | **0.00998095** |
| **5** | **0.84824212** | **1.06486195** | **1.28747569** | **0.84941984** | **1.14558423** | **1.23971410** | **1.22970523** | **0.84986118** | **1.06689448** | **1.07674236** | **1.34008827** | **1.13314845** | **0.00362669** | **0.00997078** | **0.00362669** | **0.00997078** | **0.00362669** | **0.00997078** |