# Aufgabe 1

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| --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 |
|  |  |  |  |  |
|  | 3.9203 | 5.9169 | 11.3611 | 14.8550 |

1. Lagrange-Interpolation:

|  |  |
| --- | --- |
|  |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |

1. Analytische Berechnung des exakten Wertes:  
   absoluter Fehler: relativer Fehler:
2. Berechnung mittels Romberg-Extrapolation:  
     
   absoluter Fehler: relativer Fehler:

Die Romberg-Extrapolation schneidet in diesem Beispiel besser ab als die Lagrange-Interpolation.

# Aufgabe 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Höhe über Meer [m] | 0 | 1250 | 2500 | 3750 | 5000 | 10000 |
| Atmosphärendruck [hPa] | 1013 | NaN | 747 | NaN | 540 | 226 |

Berechnung für

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Berechnung für

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