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| **Student Name:** |
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1. For the following functions, determine the third-order Taylor polynomial for . Then estimate the error at the same point.
2. Suppose that and . Use five-digit chopping for calculating . Estimate the absolute and relative errors. Use the following table to fill the results.

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| --- | --- | --- | --- | --- |
| Operation | Result | Actual Value | Absolute Error | Relative Error |
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1. Let *r*=0.74054 and *s*=0.15401. Use four-digit arithmetic to approximate and determine the absolute and relative errors using **(a)** rounding, **(b)** chopping.