A1. Newton's Method

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The approximate solutions to $1/100$ $(x^4 + (e - 2 - \sqrt{2})x^3 + (2\sqrt{2} - \sqrt{2}e - 3 - 2e)x^2 + (2\sqrt{2}e + 3\sqrt{2} - 3e)x + 3\sqrt{2}e) = 0$ are 1.4142146461597453, 3.000000023743345, -1, and -2.7182905710845873. Two approximate positive solutions to $\tan(x) - x - 2 = 0$ are $1.9420639532781923e+53$ and $8.771393725571937e+58$, and two approximate negative solutions are -4.30268925947373 and -4.302689307940587.