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### 3.5.2 Finger Exercise: Another application of Newton's Method

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Finger Exercises 3 due Aug 17, 2023 05:00 IST   Completed

MO2.3

MO2.10

Consider the function

$$r(x) = 1 + x - x^4$$

(3.24)

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Problem: First step of Newton's Method



3.0/3.0 points (graded)

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1.3333333333

✓ Answer: 1.33

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Problem: Behavior of Newton's method

2.0/2.0 points (graded)

As you continue the Newton iterations for finding a root of  $r(x)$ , what behavior do you expect to observe?

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Convergence to a root near  $x^1$

Convergence (i.e. no convergence)

Division by zero



Something else



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Answers are displayed within the problem

**SOLUTION:** The solution will be available shortly after the due date

in Section 3.2.2

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