Group Discussion – Discuss how Newton's Method for finding square root works

Lynn Robert Carter, PhD

2018-02-24

Activity Kind

Group discussion

Purpose

The purpose of this discussion is to explore implementation of double-based Newton's Method for finding square root.

Pre-requisite

Students are expected to have participated in the Small Group Exercise - Do basic arithmetic with UNumber and the Small Group Exercise - Doing UNumber arithmetic with different sized operands.

Tasking

The students are expected to quickly skim the code for the Java project: DemoSquareRootWithDouble. As soon as everyone has had a chance to reread the code, the mentor walks through the code in execution order and randomly askes student to explain what each line of code is doing.

If a student does not know, the mentor asks a couple of leading questions to help the student figure it out. If that is not working, the mentor then asks who can explain the purpose of the statement and students raise their hands. The mentor selects from the group an individual who have not been as active and asks for help. The faculty member then work to draw the answer from the student more actively than the first attempt. If this student does not answer the question correct, the mentor asks another or gives their perspective and moves to the next line of code.

There is no actual deliverable for this exercise beyond the notes the students take.

Deliverable

If there are no notes from this activity in an individual's engineering notebook, our only conclusion must be that you did not participate.

Submission

Students are expected to submit their ENB prior to midnight, the day of this activity.