

Thank You So Much For Working With Me!!!

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(Redo for Problem 3 on Midterm #1) < Due at 9:30am on 10/10/2013

3. (10 pts) Create an extended BNF grammar that describes real numbers. Use only one rule, in addition to the rules for <digit>. All of your acceptable numbers must have one decimal point and at least one integer before and after the decimal point. Allow for, but don't require, a + sign or - sign in front of the number. Allow as an option the use of scientific notation, so that 3.4e+08 and 0.45e-12 are real numbers. There should be exactly two digits following the + or - sign in the scientific notation.

Doesn't require a sign at all. Make sure to include possibilities for (+|-); No choice made

Answer:

$$[(+|-)]\{\langle \text{digit} \rangle\}^+.\{\langle \text{digit} \rangle\}^+[e(+|-)\langle \text{digit} \rangle\langle \text{digit} \rangle]$$