

Program for TI-83/84 to Solve Limiting Reactant Problems

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PROGRAM:LIMIT2
:ClrHome
:Output(1,1,"FINDS LIMITING")
:Output(2,1,"REACTANT GIVEN")
:Output(3,1,"RXN COEFS AND")
:Output(4,1,"STARTING MASSES")
:Pause
:ClrHome
:Disp "ENTER RXN COEFS AND PROD COEF "
:Input "RXN COEF A ",A
:Input "RXN COEF B ",B
:Input "PRODUCT COEF C ",C
:ClrHome
:Disp "ENTER MASSES"
:Input "MASS OF A ",D
:Input "MASS OF B ",E
:ClrHome
:Disp "ENTER MOLAR MASSES"
:Input "MOLAR MASS A ",F
:Input "MOLAR MASS B ",G
:Input "MOLAR MASS C ",H
:Disp "CALC RRS"

:Pause
:ClrHome
:(D/F)/A->I
:(E/G)/B->J
:If I<J
:Then
:Output(1,1,"A IS LIMITING")
:E-(I*B)*G->K
:Output(2,1,K)
:Output(3,1,"GRAMS B REMAIN")
:I*C*H->L
:Output(4,1,L)
:Output(5,1,"GRAMS C PRODUCED")
:Stop
:End
:If I>J
:Then
:Output(1,1,"B IS LIMITING")
:D-(J*A)*F->M
:Output(2,1,M)
:Output(3,1,"GRAMS A REMAIN")
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:J*C*H->L
:Output(4,1,N)
:Output(5,1, "GRAMS C PRODUCED")
:Stop
:End
:If I=J
:Then
:Output(1,1, "ALL RRS EQUAL")
Output(2,1, "REACTANTS ALL USED")
:J*C*H->N
:Output(3,1,N)
:Output(4,1, "GRAMS C PRODUCED")
:End
:Stop
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