

EQLIB

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|---|--|---|
| EQlib: start screen of equation library | <pre> XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX </pre> | <pre> HELP START SCREEN VIEW VIEW EQUATIONS FIND FIND EQUATION ADD ADD NEW EQUATION DEL DELETE EQUATION QUIT QUIT PROGRAM [MODE] H=HELP </pre> |
| [MODE H] = help in main screen | <pre> VIEW FIND ADD DEL QUIT </pre> | <pre> GRAPH OK </pre> |
| VIEW: view and select equation from choosebox | <pre> XXXXXXXXXXXXXXXXXXXXX </pre> <div style="border: 1px solid black; padding: 5px;"> <p>Motion: { linear motion Electricity: { AC: { R</p> </div> | <pre> XXXXXXXXXXXXXXXXXXXXX </pre> <div style="border: 1px solid black; padding: 5px;"> <p>linear Motion: { "line angular Motion: { "ang Free Fall: { "Free Fal projectile Motion: { "</p> </div> |
| Motion | <pre> </pre> | <pre> </pre> |
| Linear Motion | linear motion | $x=x_0+v_0t+\frac{1}{2}at^2$ |
| EQNS: displays equatons successively in EQ | SOLVE EQNS VARS PICT STCK EXIT | EDIT CURS BIG = EVAL FACTO SINP |
| next equation with [ENTER] or [ON] | $x=x_0+\frac{1}{2}(v_0+v)t$ | $v=v_0+at$ |
| VARS: shows info on variables and units | <pre> linear motion v0_m/s: initial veloc... x0_m: initial position a_m/s^2: accelera... t_s: time v_m/s: final velocity xm: final position +SKIP SKIP+ +DEL DEL+ DEL L Ins = </pre> | NO PICT |
| PICT: shows picture | <pre> 3: "linear motion v0_m/s: initial v... x0_m: initial pos... a_m/s^2: accelera... t_s: time 2: Graphic 42 x 8 NO PICT 1: {x=x0+v0t+1/2.at^2 x=xt </pre> | + |
| STCK: copies info, graphic, equations to stack | <pre> 3: "linear motion v0_m/s: initial v... x0_m: initial pos... a_m/s^2: accelera... t_s: time 2: Graphic 42 x 8 NO PICT 1: {x=x0+v0t+1/2.at^2 x=xt </pre> | <pre> 9: 8: 7: 6: 5: 4: 3: 2: 1: </pre> |
| SOLVE: starts solver | EE PPAP EQlibVparaHelpE | x x0 v v0 g t |
| Next example Electricity | <pre> XXXXXXXXXXXXXXXXXXXXX </pre> <div style="border: 1px solid black; padding: 5px;"> <p>Motion: { linear Motio Electricity: { AC: { R</p> </div> | <pre> XXXXXXXXXXXXXXXXXXXXX </pre> <div style="border: 1px solid black; padding: 5px;"> <p>AC: { RC-serial: { "RC DC: { R-serial: { "R-s</p> </div> |
| [OK] select subset AC or DC | <pre> </pre> | <pre> </pre> |
| main screen press FIND RL-par finds equation directly from name | FIND EQUATION | RL-parallel |
| | <pre> RL-par VIEW FIND ADD DEL QUIT </pre> | <pre> SOLVE EQNS VARS PICT STCK EXIT </pre> |

| | | |
|--|--|--|
| main screen ADD: add new equation | add new equation after, before: 'a' old title: "RL-parallel" new title: "RLC-parallel" | title description of vars |
| description of vars | ENTER a,b: EDIT CANCEL OK | RLC-parallel 4 VIEW FIND ADD DEL QUIT |
| Picture from stack | picture from stack (y)es, (n)o | ENTER equations |
| Enter equations | n4 VIEW FIND ADD DEL QUIT | $Z = \sqrt{R^2 + \left(\omega L - \frac{1}{\omega C} \right)^2}$ VIEW FIND ADD DEL QUIT |
| view result | =====EQUATIONS===== <div>RC-serial: { "RC-seria RC-parallel: { "RC-par RL-serial: { "RL-seria RL-parallel: { "RL-par RLC-parallel: { "RLC-p</div> | $Z = \sqrt{R^2 + \left(\omega L - \frac{1}{\omega C} \right)^2}$ |
| EXIT: back to main screen | CANCEL OK | EDIT CURS BIG EVAL FACTO SIMP |
| main screen DEL: delete equation RLC- | delete equation type in title | =====EQUATIONS===== <div>RC-serial: { "RC-seria RC-parallel: { "RC-par RL-serial: { "RL-seria RL-parallel: { "RL-par</div> |
| VIEW shows that equation is deleted | RLC-4 VIEW FIND ADD DEL QUIT | CANCEL OK |
| main screen FIND proj finds projectile motion | projectile motion | HELP EQUATION SCREEN SOLVE START SOLVER, QUIT PROGRAM EQNS VIEW/EDIT EQNS IN EQM VARS VIEW/EDIT VARIABLES PICT VIEW PICTURE +STCK VARS,PICT,EQNS TO STACK,EQ EXIT BACK TO START SCREEN [MODE] H=HELP [STO] STO CHANGES IN VARS,EQN? [M] SWITCHES BETWEEN LARGE GRAPH CANCEL OK |
| equationlist is stored in 3: SCIENCE/SD in the form of nested tagged lists: :title: {"description of vars, units" PICTURE (or "NO PICT") 'EQ1' .. 'Eqn' } | :Electricity: { :AC: { :RC-serial: { "RC-serial" Z_L: impedance R_g: resistance C_F: capacitance w_L:=1: angular frequency" "NO PICT" 'Z=F(R^2+1/(w^2*C^2))' "P=ATAN(1/(w*R*C))' } :RC-parallel: { "RC-parallel" 4_L: impedance +SKIP+DEL DEL+DEL L INS+ G: 0: 1: 2: 3: 4: 5: 6: 7: 8: 9: EQlib Vpurge Help | 4 :Motion: { :linear Motion: { "linear Motion" v0_L/s: initial velocity x0_L/m: initial position a_L/s^2: acceleration t_s: time v_L/s: final velocity x_L/m: final position" "NO PICT" 'x=x0+v0*t+1/2*a*t^2' 'x=x0+v0*t-1/2*a*t^2' 'x=x0+1/2*(v0+v)*t' 'u=v0+a*t' } :angular Motion: { +SKIP+DEL DEL+DEL L INS+ G: 0: 1: 2: 3: 4: 5: 6: 7: 8: 9: EQlib Vpurge Help |
| Eqlib: starts equation library Vpurge: purge all variables remaining from Solvr | | HELP EQLIB EQlib + - STARTS EQlib EQUATION LIBRARY PROGRAM Eqlist in :3: SCIENCE/SD [MODE] H1 = HELP Vpurge + - PURGE REAL,INTEGER VARS IN ACTUAL DIRECTORY YOU CAN ADD, EDIT, DELETE EQUATIONS WITH Eqlib, BUT IT IS RECOMMENDED, TO DO THIS ON A PC WITH HPUSEREDIT (www.hpccalc.org) GRAPH CANCEL OK |
| HELP | | |
| | 4 :Motion: { :linear Motion: { "linear Motion" v0_L/s: initial velocity x0_L/m: initial position a_L/s^2: acceleration t_s: time v_L/s: final velocity x_L/m: final position" "NO PICT" 'x=x0+v0*t+1/2*a*t^2' 'x=x0+v0*t-1/2*a*t^2' 'x=x0+1/2*(v0+v)*t' 'u=v0+a*t' } :angular Motion: { +SKIP+DEL DEL+DEL L INS+ G: 0: 1: 2: 3: 4: 5: 6: 7: 8: 9: EQlib Vpurge Help | 4 :Motion: { :linear Motion: { "linear Motion" v0_L/s: initial velocity x0_L/m: initial position a_L/s^2: acceleration t_s: time v_L/s: final velocity x_L/m: final position" "NO PICT" 'x=x0+v0*t+1/2*a*t^2' 'x=x0+v0*t-1/2*a*t^2' 'x=x0+1/2*(v0+v)*t' 'u=v0+a*t' } :angular Motion: { +SKIP+DEL DEL+DEL L INS+ G: 0: 1: 2: 3: 4: 5: 6: 7: 8: 9: EQlib Vpurge Help |