Physics 40 Constants and Equations

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| v sound air = 343 m/s  n water = 1.33 | **Constants & Conversions**        n vacuum = 1.0000 | n air = 1.0003 |
| **Mechanics**                              v = (vi + vf)  a = (vf – vi)/t | **Energy & Work** | **Waves & Optics**              n = c/v  ni sin i = nr sin r  sin crit = nr/ni  tan brew = nr/ni  sin = /w = x/L  sin = /d = x/L  v sound = 331 m/s + 0.6T  T = 1/f  f = #osc/t  f = R  *i* = *r* |
| **Harmonic Motion** |
| **Analysis**  sin = opp/hyp  cos = adj/hyp  tan = opp/adj  a2 + b2 = c2  cm = x10-2 m  mm = x10-3 m  nm = x10-9 m | **Modern** |