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FORM by J.Vermaseren,version 3.3(Jun 10 2009) Run at: Wed Apr 17 07:20:58
2013
    * PHZ 3113 Weber & Arfken, p.219:
    * 3x3 determinant for normal modes.
    * kM=k/M, km=k/m, la=omega^2 eigenvalues wanted.
         Symbols kM,km,la;
         Off stat;
         Local det=(kM-la)*(2*km-la)*(kM-la)+0+0
                  -(kM-la)*(-km)*(-kM)
                  -(-kM)*(-km)*(kM-la)-0;
    * Reduction by eigenvalue 1: la=0.
         Local dla=-det/la;
    * Remaining eigenvalues la2,3=km+kM-/+Sqrt[(km+kM)^2-2*kM*km-kM^2].
    * Sqrt=-/+km: la2=kM, la3=kM+2*km. Check:
         Local Zero=dla-(la-kM)*(la-kM-2*km);
         Bracket la;
         Print;
         .sort

   det =
       + la * (  - 2*kM*km - kM^2 )

       + la^2 * ( 2*km + 2*kM )

       + la^3 * (  - 1 );

   dla =
       + la * (  - 2*km - 2*kM )

       + la^2 * ( 1 )

       + 2*kM*km + kM^2;

   Zero = 0;

         .end
  0.00 sec out of 0.00 sec
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