(1/20)\*t[1]^2\*(diff(phi(x), x, x))^2\*((t[1]+t[2])^5-t[1]^5)/(t[2]^2\*E[T])+(1/8)\*t[1]^2\*(diff(phi(x), x, x))^2\*(-2\*t[1]-2\*t[2])\*((t[1]+t[2])^4-t[1]^4)/(t[2]^2\*E[T])+(1/3\*((1/4)\*t[1]^2\*(diff(phi(x), x, x))^2\*(t[1]+t[2])^2/(t[2]^2\*E[T])+(1/4)\*t[1]^2\*(diff(phi(x), x, x))^2\*(-2\*t[1]-2\*t[2])^2/(t[2]^2\*E[T])+(1/2)\*t[1]\*(diff(phi(x), x, x))\*((-cos(a)^2\*nu[A]/E[A]-sin(a)^2\*nu[T]/E[T])\*t[1]\*phi(x)/t[2]+(-sin(a)^2\*nu[A]/E[A]-cos(a)^2\*nu[T]/E[T])\*t[1]\*eta(x)/t[2]+(1/2)\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2/(E[T]\*t[2])+2\*cos(a)\*sin(a)\*(-nu[A]/E[A]+nu[T]/E[T])\*t[1]\*psi(x)/t[2])/t[2]-t[1]\*(diff(psi(x), x))\*(-(cos(a)^2/G[T]+sin(a)^2/G[A])\*t[1]\*(diff(psi(x), x))/t[2]-cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(phi(x), x))/t[2])/t[2]+(1/2)\*t[1]^2\*eta(x)\*(-sin(a)^2\*nu[A]/E[A]-cos(a)^2\*nu[T]/E[T])\*(diff(phi(x), x, x))/t[2]^2+(1/2)\*t[1]^2\*phi(x)\*(-cos(a)^2\*nu[A]/E[A]-sin(a)^2\*nu[T]/E[T])\*(diff(phi(x), x, x))/t[2]^2-t[1]\*(diff(phi(x), x))\*(-cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(psi(x), x))/t[2]-(sin(a)^2/G[T]+cos(a)^2/G[A])\*t[1]\*(diff(phi(x), x))/t[2])/t[2]+t[1]^2\*psi(x)\*cos(a)\*sin(a)\*(-nu[A]/E[A]+nu[T]/E[T])\*(diff(phi(x), x, x))/t[2]^2))\*((t[1]+t[2])^3-t[1]^3)+(1/2\*(t[1]^2\*psi(x)\*cos(a)\*sin(a)\*(-nu[A]/E[A]+nu[T]/E[T])\*(diff(phi(x), x, x))\*(-2\*t[1]-2\*t[2])/t[2]^2+t[1]\*(diff(phi(x), x))\*(t[1]+t[2])\*(-cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(psi(x), x))/t[2]-(sin(a)^2/G[T]+cos(a)^2/G[A])\*t[1]\*(diff(phi(x), x))/t[2])/t[2]-t[1]\*(diff(phi(x), x))\*(cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(psi(x), x))\*(t[1]+t[2])/t[2]+(sin(a)^2/G[T]+cos(a)^2/G[A])\*t[1]\*(diff(phi(x), x))\*(t[1]+t[2])/t[2])/t[2]+t[1]\*(diff(psi(x), x))\*(t[1]+t[2])\*(-(cos(a)^2/G[T]+sin(a)^2/G[A])\*t[1]\*(diff(psi(x), x))/t[2]-cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(phi(x), x))/t[2])/t[2]-t[1]\*(diff(psi(x), x))\*((cos(a)^2/G[T]+sin(a)^2/G[A])\*t[1]\*(diff(psi(x), x))\*(t[1]+t[2])/t[2]+cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(phi(x), x))\*(t[1]+t[2])/t[2])/t[2]+(1/2)\*t[1]^2\*eta(x)\*(-sin(a)^2\*nu[A]/E[A]-cos(a)^2\*nu[T]/E[T])\*(diff(phi(x), x, x))\*(-2\*t[1]-2\*t[2])/t[2]^2+(1/2)\*t[1]^2\*phi(x)\*(-cos(a)^2\*nu[A]/E[A]-sin(a)^2\*nu[T]/E[T])\*(diff(phi(x), x, x))\*(-2\*t[1]-2\*t[2])/t[2]^2+(1/4)\*t[1]^2\*(diff(phi(x), x, x))^2\*(t[1]+t[2])^2\*(-2\*t[1]-2\*t[2])/(t[2]^2\*E[T])+(1/2)\*t[1]\*(diff(phi(x), x, x))\*(-2\*t[1]-2\*t[2])\*((-cos(a)^2\*nu[A]/E[A]-sin(a)^2\*nu[T]/E[T])\*t[1]\*phi(x)/t[2]+(-sin(a)^2\*nu[A]/E[A]-cos(a)^2\*nu[T]/E[T])\*t[1]\*eta(x)/t[2]+(1/2)\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2/(E[T]\*t[2])+2\*cos(a)\*sin(a)\*(-nu[A]/E[A]+nu[T]/E[T])\*t[1]\*psi(x)/t[2])/t[2]))\*((t[1]+t[2])^2-t[1]^2)+t[1]\*phi(x)\*((cos(a)^4/E[A]+cos(a)^2\*sin(a)^2\*(-2\*nu[A]/E[A]+1/G[A])+sin(a)^4/E[T])\*t[1]\*phi(x)/t[2]+(sin(a)^2\*cos(a)^2\*(1/E[A]+1/E[T]-1/G[A])-(sin(a)^4+cos(a)^4)\*nu[A]/E[A])\*t[1]\*eta(x)/t[2]+(1/2)\*(-cos(a)^2\*nu[A]/E[A]-sin(a)^2\*nu[T]/E[T])\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2/t[2]+sin(a)\*cos(a)\*(cos(a)^2\*(2/E[A]+2\*nu[A]/E[A]-1/G[A])+sin(a)^2\*(-2\*nu[A]/E[A]-2/E[T]+1/G[A]))\*t[1]\*psi(x)/t[2])+t[1]\*(diff(phi(x), x))\*(t[1]+t[2])\*(cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(psi(x), x))\*(t[1]+t[2])/t[2]+(sin(a)^2/G[T]+cos(a)^2/G[A])\*t[1]\*(diff(phi(x), x))\*(t[1]+t[2])/t[2])+(1/2)\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2\*((-cos(a)^2\*nu[A]/E[A]-sin(a)^2\*nu[T]/E[T])\*t[1]\*phi(x)/t[2]+(-sin(a)^2\*nu[A]/E[A]-cos(a)^2\*nu[T]/E[T])\*t[1]\*eta(x)/t[2]+(1/2)\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2/(E[T]\*t[2])+2\*cos(a)\*sin(a)\*(-nu[A]/E[A]+nu[T]/E[T])\*t[1]\*psi(x)/t[2])+t[1]\*eta(x)\*((sin(a)^2\*cos(a)^2\*(1/E[A]+1/E[T]-1/G[A])-(sin(a)^4+cos(a)^4)\*nu[A]/E[A])\*t[1]\*phi(x)/t[2]+(sin(a)^4/E[A]+cos(a)^2\*sin(a)^2\*(-2\*nu[A]/E[A]+1/G[A])+cos(a)^4/E[T])\*t[1]\*eta(x)/t[2]+(1/2)\*(-sin(a)^2\*nu[A]/E[A]-cos(a)^2\*nu[T]/E[T])\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2/t[2]+sin(a)\*cos(a)\*(sin(a)^2\*(2/E[A]+2\*nu[A]/E[A]-1/G[A])+cos(a)^2\*(-2\*nu[A]/E[A]-2/E[T]+1/G[A]))\*t[1]\*psi(x)/t[2])+t[1]\*psi(x)\*(sin(a)\*cos(a)\*(cos(a)^2\*(2/E[A]+2\*nu[A]/E[A]-1/G[A])+sin(a)^2\*(-2\*nu[A]/E[A]-2/E[T]+1/G[A]))\*t[1]\*phi(x)/t[2]+sin(a)\*cos(a)\*(sin(a)^2\*(2/E[A]+2\*nu[A]/E[A]-1/G[A])+cos(a)^2\*(-2\*nu[A]/E[A]-2/E[T]+1/G[A]))\*t[1]\*eta(x)/t[2]+cos(a)\*sin(a)\*(-nu[A]/E[A]+nu[T]/E[T])\*t[1]\*(diff(phi(x), x, x))\*(t[1]+t[2])^2/t[2]+(4\*sin(a)^2\*cos(a)^2\*(1/E[A]+2\*nu[A]/E[A]+1/E[T])+(sin(a)^2-cos(a)^2)^2/G[A])\*t[1]\*psi(x)/t[2])+t[1]\*(diff(psi(x), x))\*(t[1]+t[2])\*((cos(a)^2/G[T]+sin(a)^2/G[A])\*t[1]\*(diff(psi(x), x))\*(t[1]+t[2])/t[2]+cos(a)\*sin(a)\*(1/G[A]-1/G[T])\*t[1]\*(diff(phi(x), x))\*(t[1]+t[2])/t[2])