**Section 10.7 The Wave Equation**

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**A vibrating string**

The following commands create and show an animation of the solution of the wave equation $u(x,t) = \sin(5x)\cos(5t),\ 0 < x < \pi,\ 0 < t < 2 \pi$. In the animation, $t = n\pi/50$.

X = 0:0.01:pi;

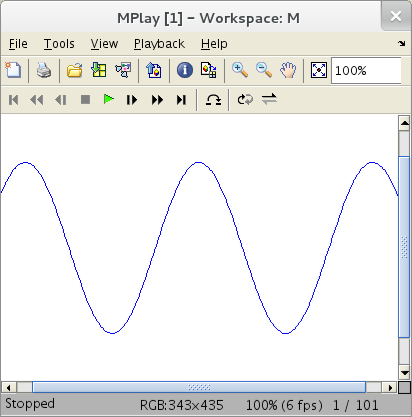
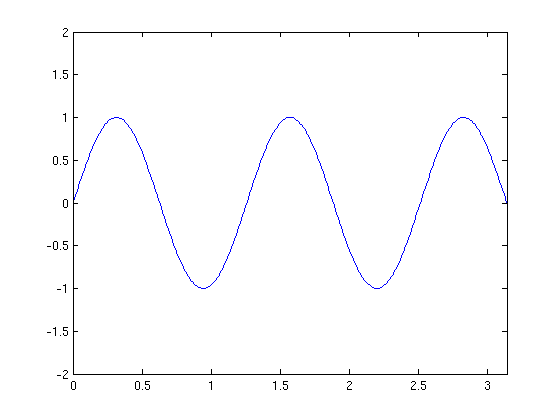
for n = 0:100

plot(X, sin(5\*X)\*cos(n\*pi/10)), axis([0,pi,-2,2])

M(n+1) = getframe;

end

mplay(M,6)



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