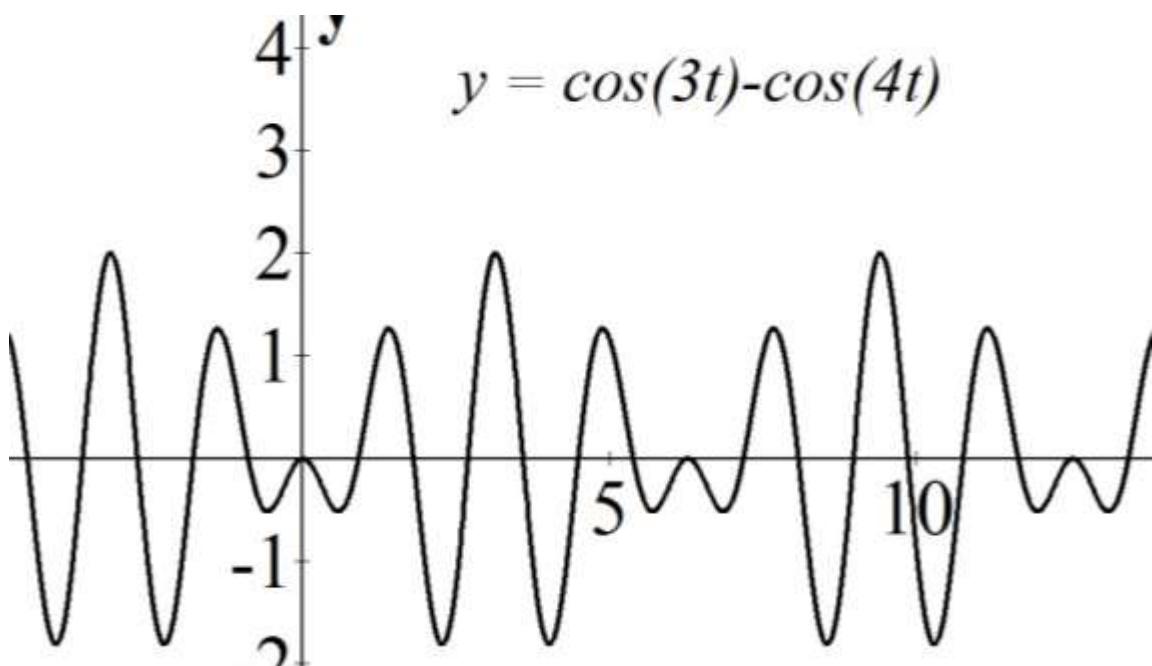


Solution to

$$y'' + 9y = 7 \cos(4t), y(0) = 0, y'(0) = 0.$$

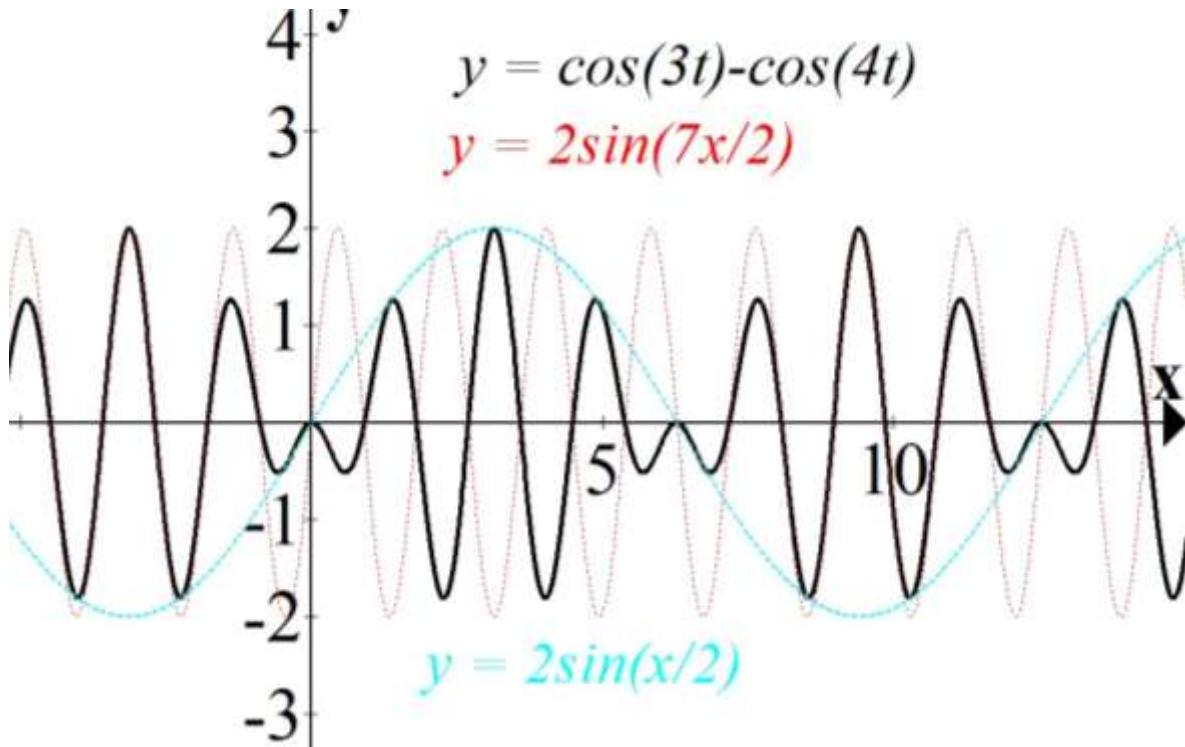


The following identity

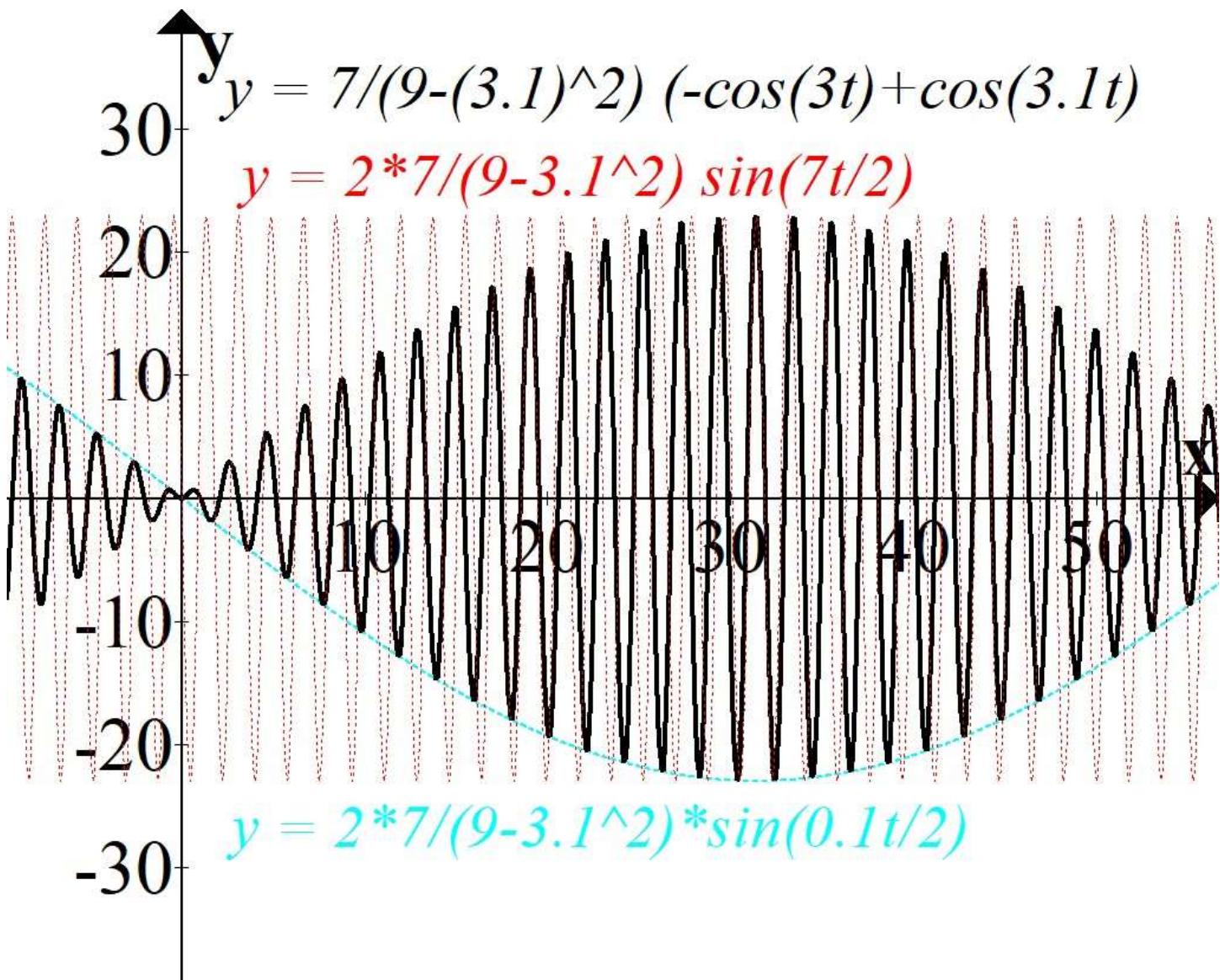
$$\cos(A) - \cos(B) = 2 \sin\left(\frac{A+B}{2}\right) \sin\left(\frac{B-A}{2}\right)$$

implies

$$\cos(3t) - \cos(4t) = 2 \sin\left(\frac{7}{2}t\right) \sin\left(\frac{1}{2}t\right)$$



$$y'' + 9y = 7 \cos(3.1t), y(0) = 0, y'(0) = 0$$



Solution to

$$y'' + 9y = 7 \cos(3t), y(0) = 0, y'(0) = 0$$

