

**Quiz 7, April 6, 2017, 11:40 class**

Find the Laplace transform of  $\cos^2 2t$ .

Answer:

$$\mathcal{L}(\cos^2 2t) = \frac{1}{2}\mathcal{L}(1 + \cos 4t) = \boxed{\frac{1}{2}\left(\frac{1}{s} + \frac{s}{s^2+16}\right)}.$$