MATH2065
Introduction to Partial Differential Equations
Semester 2 – Practice Questions (Week 2)

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1. Find $\mathcal{L}^{-1}\left\{\dfrac{1}{s^2-1}\right\}$

2. Find $\mathcal{L}^{-1}\left\{\dfrac{2s}{s^2+2s-3}\right\}$

3. Find $\mathcal{L}^{-1}\left\{\dfrac{3s-1}{s^2+4s+13}\right\}$

4. Solve $y'' + 2y' + 5y = 5\left[H(t) - H(t-7)\right]$ with initial conditions $y(0) = 0$, $y'(0) = 0$.