

HOMEWORK 10**DUE: WEDNESDAY, JUNE 21**

Solve the following initial value problems using Laplace transforms

(1) $y' - y = e^{3t}$, $y(0) = 1$

(2) $y'' - 3y' + 2y = 0$, $y(0) = 0$, $y'(0) = 1$

(3) $y'' + 4y = \sin t$, $y(0) = 1$, $y'(0) = 0$

(4) $y'' - 2y' + 2y = 2e^t$, $y(0) = 0$, $y'(0) = 1$

(5) $y'' - 2y' + y = e^t$, $y(0) = 1$, $y'(0) = 0$

(6) $y'' - 6y' + 8y = 2$, $y(0) = 0$, $y'(0) = 0$