

QUIZ 8 FOR CALC 4

Name: _____ RUID: _____

- (1) (4 pt) Find the general solution of

$$y'''(t) - 2y''(t) + y'(t) - 2y(t) = e^{2t}$$

- (2) (2 pt) Let

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}, B = \begin{bmatrix} 6 & 3 \\ 5 & 2 \\ 4 & 1 \end{bmatrix}.$$

Find out $A \cdot B$.

- (3) (2 pt) What is the general solution of $ay''(t) + by'(t) + cy(t) = 0$ if the equation $au^2 + bu + c = 0$ has a multiple root r ?