

MA 262 Section 596/597 Quiz 8

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Problem 1. Write your name, quiz number, and section number at the top of a blank full sized sheet of paper.

Problem 2. Find the general solution to the differential equation

$$y'' + 8y' - 9y = 0.$$

Problem 3. Given $f(x) = 5x$, $g(x) = 10x^2$, and $h(x) = 8x - 8x^2$ then

(a) find real numbers a and b such that

$$8 \cdot f(x) + a \cdot g(x) + b \cdot h(x) = 0;$$

(b) and conclude that the functions f , g , and h are linearly dependent.

Problem 4. *Bonus.* State the definition of linear dependence.